The **future** of **interactive** entertainment

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EDGE

PlayStation ■ Saturn ■ Nintendo 64 ■ PC ■ M2 ■ Arcade ■ Net ■ Multimedia

The big boss

Nintendo president Hiroshi Yamauchi on the defensive

Power Crystal sparkles on M2

Inside:
Innerloop
MDK
Runabout
The Dark Project
Terracide
Kick Off '97
Virtua Striker 2

Ninja: Core's next Tomb Raider?



From his position as chief of NCL, **Hiroshi Yamauchi** presides over the world of interactive entertainment. Recently, however, Japanese industry watchers have been casting doubts over his company's position in an increasingly competitive market. **Edge** has the full story inside...

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The wait is almost over. Eight months after the Japanese launch, UK consumers will finally be able to get their hands on the world's most desirable piece of videogaming hardware, the Nintendo 64, on March 1.

Or will they?

Incredibly, only 20,000 units have initially been made available for the UK market, and many of these have been pre-ordered. For those who do succeed in finding one, this month's N64 supplement will no doubt prove an invaluable guide to the console – its history, its architecture, and its forthcoming games.

In the post-launch optimism, however, it is important to keep one eye on the bigger picture. The shortage of UK machines is the latest in a series of consumer-baiting delays and controversies that have surrounded the launch of Nintendo's 64bit gamebox. In Japan, financial analysts are getting edgy. There are still only ten games available for the console, and in a stark contrast to the N64 frenzy which has swept the US, there are thousands of units still freely available on the shelves of Japanese shops.

Some have insinuated that Nintendo is losing its way. Increased competition from Sony, a comparatively new rival, is intense. The rules of the game are changing. It used to be that software companies would fight to have their games released on Nintendo hardware. Now the PlayStation is proving to be a desirable alternative.

Yet **Hiroshi Yamauchi**, Nintendo's vitriolic president, remains aggressively optimistic, as this month's candid profile of the man reveals.

The 64bit age has at last arrived, potentially the best videogames are on their way, and it's a sure thing that Messrs Yamauchi and **Miyamoto** still have a few more tricks up their sleeves...

The future is almost here...







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Dracula X



Terracide



Dark Saviour


MDK



Kowloon's Gate





Photo: Antonio Pagnotta da Fonseca

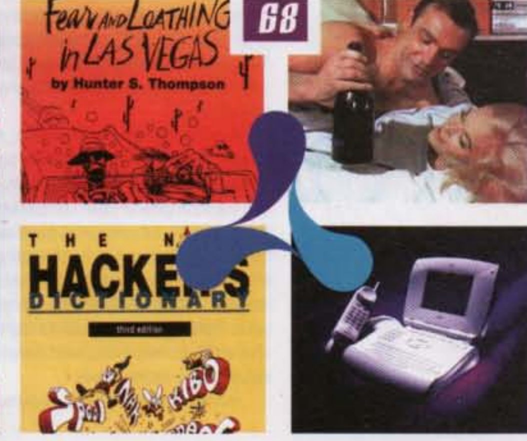


Mace: Dark Age



Rygar

REGULARS



cutting edge

THE LATEST NEWS FROM THE WORLD OF INTERACTIVE ENTERTAINMENT

Sega joins Bandai in mammoth merger

Sega coin-op classics could reach non-Sega consoles as Japanese giants form alliance

Success for Saturn in States

The Saturn may be consolidating its position in the US, despite pressure from the N64.

Ted Hoff, vice president of Sega of America, claims that sales targets have been reached and that he is more than satisfied with the Saturn's installed user base.

This announcement was prompted by the results of the recent TRST survey which showed the Saturn's share of the industry double from 10% in November '96 to 21.2% in December. The success was put down to a new Saturn bundle which includes the console and *Virtua Fighter 2*, *Virtua Cop* and *Daytona USA*.



Sega's Japanese HQ, whose inhabitants will no doubt be contemplating profits from a number of lucrative licenses

Sega Enterprises Ltd has announced a surprise plan to merge with toy manufacturer Bandai. The two entertainment giants, set to join forces on October 1, 1997, will form a new company called Sega Bandai Ltd, with assets in the region of ¥588bn. Although both companies have cited other benefits, the most exciting consequence of the merger, as revealed by a Sega spokesperson in a recent speech, is that Sega titles like *Virtua Fighter* and *Sega Rally* can now be licensed for development on other formats.

Reaction to the plan, however, has been mixed. Sega's own press release covering the merger is characteristically upbeat, pointing out the strengths of both companies and how the two might be combined to advantage in the future: 'Sega will provide leading-edge entertainment technologies, including digital content, virtual reality and computer graphics, while Bandai will contribute its expertise in character development, merchandising and visual/music technologies.'

However, despite Sega's positive tone, financial commentators have suggested that weaknesses may have played a bigger part in the merger than strengths. Although Bandai made a profit in the fiscal year up to March '96, the company is expected to post a ¥9bn loss for the period between March '96 and March '97. The company's Mac-based Pippin console has sold badly, and the Mighty Morphin' Power Rangers are currently mightily morphin' into a dead loss as fickle children turn to newer heroes.

Furthermore, Sega is facing falling profits due to competition from Sony and Nintendo; it has forecast a net income of ¥5.3bn, but this is down on an original forecast of ¥10bn. Some question what the videogame company can accomplish from the merger. As Sega's president, **Hayao Nakayami**, stated, 'Sega's main customers are high school and college students. Bandai's users are younger children.' He probably meant to accentuate how the companies could help each other, but in effect actually highlighted the fact that they are two very different companies manufacturing very different goods. The merger, then, could well be a desperate move by both companies to stay afloat rather than the powerful alliance to strengthen dominant positions suggested by the press release.

As for possible fruits of the coalition, nothing has been officially announced, but it is believed that Bandai licenses such as the Power Rangers may well find their way into forthcoming videogames. *The Guardian* (Jan 24) recently ran a report suggesting that Bandai also has links with Disney and Mattel, and that Sega is hoping to use these in forthcoming projects. However, as the report kicked off with the rather misguided words 'The violent world of Super Mario,' **Edge** cannot vouch for the overall accuracy of the rest of the piece.







Bandai's Pippin (top), and perhaps its strongest assets, the Power Rangers (above)

Nintendo 64 poised to storm Europe

After success in Japan and, especially, the US, the N64 is about to hit UK shores



Only 20,000 UK N64 machines will be available for purchase at launch, and many of those have been pre-booked

Nintendo is on a roll, and, judging by the reactions of US consumers to the company's 64bit console, is set to seriously endanger the European dominance currently enjoyed by Sony.

According to the latest TRST (Toy Retail Survey Tracking System) report in the US, Nintendo captured 50% of the entire next-generation console market in the last three months of '96. The TRST also calculated that **Yamauchi**'s company had gained 44% of all industry revenue during last year, compared to 28% for Sony and 26% for Sega. The survey's findings back up a recent press release from Nintendo claiming that 4 million N64s have been sold to date. The indications, then, are for a massively successful European launch, completing a global triangle of ascendancy.

Nintendo is certainly taking the Euro market more seriously in the run up to the March 1 launch. Last year's dismal 'You can't buy this' adverts probably did more harm than good for the console, especially considering Sony's outlandish, eye-grabbing advertising antics. Now, however, exclusive UK distributor THE Games is running a more subtle 'Believe the hype' campaign, and there's barely a Premiership football team in the country which isn't sporting a 'Nintendo 64. March 31st' advertising board somewhere around its pitch.

Importantly, it seems that THE (or at least its ad agency) has switched its focus from children to adults, capitalising on the 20-30 year old market exploited by Sony and Sega. Consequently, the machine has been receiving wide coverage in men's lifestyle mags: *FHM* reviewed *Super Mario 64* in its March issue, while *Loaded* characteristically referred to the console as 'the dog's bollocks' – an appraisal that would probably perturb the Nintendo board in Japan were it to ever come under their glare.

Europe will, however, be a tougher nut to crack than the US and Japanese markets. First, over the last two years, consumers have been battered with the message 'carts are the past and CD-ROM is the future', forcing less informed punters to interpret the N64 as some sort of backward step. They may well also interpret the £60-£70 software price tag as over-expensive and stick to the comparatively cheap £45 mark offered by the PlayStation and Saturn. Then, of course, there are the losses in performance the machine will suffer due to the conversion from NTSC to PAL (see this month's supplement, page 7).

Even if UK consumers do decide to make the jump to 64bit, a great majority of potential N64 owners are likely to be disappointed on launch day. Only 20,000 machines are being made available to British stores on March 1 and only a fraction of those will make it onto the shelves, most having been pre-ordered months ago. Rest assured, though, plenty more are due to become available in the coming months.

Although the European market is a difficult and subsidiary one, Yamauchi and co will no doubt be watching the N64 sales figures closely. The PlayStation has a very strong user base here, and a victory over Sony in this 32bit stronghold will be a symbolic one for Nintendo. Taking into consideration the company's successes elsewhere, it's hard to see Europe resisting the lure.





***Shadows of the Empire*, *Super Mario 64* and *PilotWings 64* will accompany the N64's UK launch on March 1**

Turok shock



Acclaim's forthcoming N64 title *Turok: Dinosaur Hunter* is unlikely to retail for anything less than £70 in the UK.

Virgin Megastores, one of the largest retail chains in the country, is said to be decidedly unhappy with the situation and is currently considering not stocking the title.

Retailers have said that they do not blame Acclaim for the high price, as it is a direct result of the manufacturing costs set for Nintendo licensees.

***Turok*'s price point will be a big concern to Nintendo devotees, who also suffered from high thirdparty game prices during the 16bit SNES's boom period.**

Who is it?

This ex-patriot computer-graphics artist, who cut his teeth on 8bit machines, contributed to the look of Shiny Entertainment's stunning PC shoot 'em up, *MDK* (see page 72)

ATEI 97: Microsoft poised to enter **arcades**

The world's biggest computer company has set its eyes on the arcade industry

Bushnell's back



PlayNet Technologies, headed up by ex-Atari supremo Nolan Bushnell, is producing a range of coin-op products which will offer networking via the Internet. The company's first release, PlayNet, is a counter-top video unit utilising touch-screen technology that can hold between eight and 12 videogames at a time. The system also offers Internet access and an IRC-type system which will allow players to send text and voice messages. Titles on show at ATEI were puzzle games, similar to Connect 4 and jigsaws, and although these titles do little to whet the appetite of the hardcore video gamer, the system could be a surprise success. Tests begin in March.



The most original driving game at ATEI was Konami's *GTI Club*. It has now been adapted to use Konami's *Road Rage* simulator (right)

For the last three years the coin-op industry seems to have been enduring a perpetual downturn but ATEI '97 – the UK's largest annual coin-op event – at last saw some rays of sunshine break through.

The presence of PC leviathan Microsoft raised the eyebrows of many industry pundits. Although its plans are still at the R&D stage, the company held a seminar explaining exactly what Microsoft plans to bring to the electronic amusement trade. The basic premise is to develop a standard hardware platform based on *Windows 95* (what else?) which would enable software designers in both the coin-op and consumer industries to develop arcade titles on CD-ROM, therefore reducing costs from manufacturing right down to the operating level. The project is still in its infancy, but the benefits are obvious. Reduced cost is the key factor in its favour, and a wider range of games can only be good for all concerned. The big question, however, is whether consumer software houses can produce successful coin-op titles to compete with the dedicated high-end resources of the leading Japanese players. Microsoft intends to sit down with major manufacturers, and subsequently software houses, in the near future with a view to releasing the first games in nine to 12 months' time.

Joint winner in the 'most-awaited game' category was Sega's Model 3 racer *Scud Race* and Konami's *GTI Club*. The former is currently only available in deluxe format with a moving cabinet, but the Model 3 graphics are amazing and this, coupled with its eight-unit linkup, should make it a winner. Konami's *GTI Club*, with its innovative slant on the traditional racing format, was another big hit, and Konami is capitalising on its popularity, having adapted the software for use in its *Road Rage* (aka *Speed King*) two-seater simulator. There was also much speculation of a sneak preview of Konami's Cobra system, but unfortunately all the company was prepared to show were a few graphics stills.

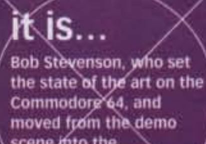
While the quality of the new coin-ops was high at ATEI, there were fewer new titles than has been the case in previous years, indicating that the arcades are polarising even further towards bigger, more expensive dedicated games.

A detailed report from the Tokyo AOU show, which promises to offer many more new coin-ops, will follow in **E**44.



Spanish coin-op firm Gaelco showed polygon racing title *Speed Up*

it is...



Bob Stevenson, who set the state of the art on the Commodore 64, and moved from the demo scene into the commercial sector before leaving for California...





Scud Race (above) and *GTI Club* (left) were the two biggest titles at ATEI

Other ATEI titles

Also debuting at ATEI:
Tekken 3 (Namco)
Speed Up (Gaelco)
San Francisco Rush (Atari)
Maximum Force (Atari)
Street Fighter EX (Capcom)
Bubble Bobble 3 (Taito)
Return of Arkanoid (Taito)
World PK Soccer V2 (Jaleco)



Vultures circle **Scavenger**

Premier league US videogame developer hits rocky ground







Scavenger's *Amok* (above left), *Scorcher* (above right), and its most eagerly anticipated game, the dungeon-based *Into the Shadows* (main)

Rumours abound concerning the future of once-feted PC developer, Scavenger. Reports suggest that the company, formed just two years ago, has ceased trading. Phone lines have been either disconnected or left to ring in all of Scavenger's UK and US offices, and GT Interactive, which have the publishing rights to three of Scavenger's titles, has refused to comment, as it is currently entering into litigation with the development house. Details of the legal situation are sketchy, but it's likely to be connected with the fact that not only have Scavenger delivered its titles over six months late, but that its most promising project, *Into the Shadows*, has been canned.

This leaves GTI with *Amok*, PC and Saturn racer *Scorcher*, and no *Quake*-beating blockbuster for '97 from a company into which it has reputedly invested over £2m of development and marketing cash.

If all this is true, it will be a sad end to director **Daniel Small**'s dream. Only last year, when Scavenger showed ten games to an impressed audience at E3, the company was believed to be worth somewhere in the region of $50m...

Creation croaks

***Creation*, Bullfrog's long-awaited nautical strategy game, has been canned by producer EA. Apparently the title was simply not living up to its original concepts and design goals.**

Rumours has it that the move has caused friction within Bullfrog with some members of staff, including the *Creation* team leader, leaving to set up their own development house.

Of course, director Peter Molyneux may also leave Bullfrog when *Dungeon Keeper* is completed.

Philips quits **games market**

The Dutch electronics company hands over software assets to Infogrames and Ocean



The CD-i (above) never found a niche in the multimedia market – one reason why Philips has decided to call it a day. Forthcoming titles like *UEFA Soccer* (left) will be passed on to Infogrames and Ocean

After a year of closures and job losses, Philips, the Dutch electronics giant responsible for the ill-fated CD-i, has finally ended its direct involvement in the game industry. The company is now passing on all its assets in this area to Infogrames and its UK partner Ocean. These include various European offices as well as all games now in production under the Philips monicker.

Philips purchased a 13% share in Infogrames several years ago, and should see this boosted by a further 12% when the transfer is complete. The electronics giant now hopes to reap the benefits of successful titles without having to cope with the management headaches of publishing and distribution.

The withdrawal marks the end of an era for a company which, like Sony, entered an unfamiliar industry with a brand new piece of hardware. When the CD-i failed (due to poor hardware and software performance), the company moved on to game publishing, but made a series of bad decisions in this area too. **Edge** assumes that the rumoured CD-i2 project has also been canned.

What is it?

One of the first handheld gaming 'systems', this product line included *Snoopy Tennis*, *Mario's Cement Factory* and *Donkey Kong*. Each unit told the time, too

Square delivers **32bit** gaming **fantasy**

Square Soft's biggest game to date has caused a momentous stir in Japan



***Final Fantasy VII* breaks new ground in more than simply sales terms – it's delivered on three discs, and even has a competitive price point**

It takes a brave company to forecast sales of four million for any game, but when Square Soft's second PlayStation title, *Final Fantasy VII*, launched in Japan on January 31, it more than justified the hype it's been receiving since its announcement more than a year ago.

While it was already the most pre-ordered game in history (1.8m in the week before launch) the three-disc RPG notched up sales of nearly 2.04m units in just three days through Square's new policy of selling through its Digicube subsidiary into convenience stores as well as traditional video game outlets. While shelves were full of unsold Saturns and Nintendo 64s, the chances of purchasing a PlayStation were almost zero during the week leading up *Final Fantasy* Friday.

Fans of the previous NES and SNES incarnations who were worried that Square's apparent desire to create something more akin to an interactive movie (with FMV interludes) would mean a trade-off in the quality of the story and characters need not have worried. While the incredible prerendered backdrops inhabited by realtime 3D Gouraud-shaded characters are easily the most striking thing about the game (and in the process have made Square SGI's largest desktop customer), the storyline, which again mixes magic and technology, is as large and as complex as any *Final Fantasy* tale yet. The huge industrial city seen in the recent demo disc given away with polygon fighter *Tobal No.1* is only the start of the game. After 6-7 hours play the huge overworld map becomes available, finally shaking off its SNES Mode 7 flatness for a true 3D version, giving access to a huge range of locations. FMV interludes are small, unobtrusive and seamlessly integrated, and while the frequent random battle encounters are still very much in evidence, bringing them into full 3D and packing them with amazing graphical effects more than offsets the fact that they're still turn-based and menu driven.

America will have to wait until September 7 to see if the western version of *FFVII* can repeat its success outside of Japan, while the UK could see a release before Christmas. Already, though, some of the more adult themes in the game are causing Sony and the game's translators headaches. Brothels, cross-dressing and the usual Japanese open attitude to sex could all mean either censorship or at least a teen rating for the game. Although not wishing to offend traditionally sensitive US sensibilities is admirable, **Edge** wonders if far more effort should be spent trying not to destroy any of the original's atmosphere with a glib, localised translation that is so often the downfall of this type of game.

it is...

The Game & Watch series by Nintendo. The company introduced countless different models and some of the more rare versions have become collector's items









The game uses a style of play that will be familiar to Japanese RPG fans (above right), but introduces some fantastic CGI (top right)

DATA STREAM

Amount of PlayStations sold in Europe as of December 31, 1996: 2.2m
Amount sold in the UK: 700,000
European software sales: 11 million units
According to *The Guardian*, BT profits per second: £105
Number of Internet users in the UK: 600,000
Amount of phone calls made from the UK on Christmas day, 1996: 60m
Spice Girls albums sold in the UK by the end of 1996: 1.7m
According to www.microsoft.com, Microsoft's 1995 R&D expenditure: $860m
Average age of Microsoft employees: 34.3yrs
Number of Microsoft employees worldwide: 20,561
Number of people worldwide who use Microsoft office products: 55m
According to the latest TRST figures, the number of 3DO units sold per month in North America in the run up to Christmas 1996: 5,000
US sales of the Jaguar, per month, in late Summer: 100
Amount of Jaguars sold in December 1996: 1,000
According to SGI, the amount of cigarettes that the latest tobacco handling machinery can produce in a minute: 12,000
According to a survey by Nytol, the amount of men who suffer sleepless nights due to worries about their sex lives: 42%

● THIS MONTH...
● EGGS SET CRAZE
● COSTUME PARTIES
● MORE M2 DELAYS

THOUGH JAPAN REMAINS HOME TO THE MOST FANATICAL OF VIDEOGAMERS, ALL FORMS OF **ELECTRONIC ENTERTAINMENT ARE WELCOMED WITH OPEN ARMS,** AS THIS MONTH'S COLUMN REVEALS. MEANWHILE, EDGE ALSO TAKES A LOOK AT ANOTHER TENUOUSLY LINKED VIDEOGAMING PURSUIT...

Eggs provoke scramble

Game & Watch, Nintendo's range of pocket games, was massively popular in the '80s, and it looks as though the hand-held trend is heading for a revival. Last year, a small keyring version of *Tetris* proved a massive success, and a few months back, Bandai released perhaps the strangest success story to date.

Tamagochi (Japanese for 'egg') is a very basic artificial-intelligence-driven game attached to a key chain. When the product is purchased, a strange egg creature hatches on the small LCD screen, and it's up to the user to take care of it. From this point on, the demanding little critter can communicate with its owner through a range of beeps and signs, which can indicate anything from hunger or sleepiness to plain old boredom. In return, the player uses screen icons and three buttons to feed, care for and educate the egg (in a similar, albeit crude, fashion to Millenium's *Creatures*) so that it stays alive and happy. No one, it seems, wants to be left with a key holder that exhibits eating disorders and dysfunctional behavioural patterns.

To say Tamagochi has been a success is an understatement of gigantic proportions. Bandai initially produced 300,000 units of the game – at ¥1,980 (£10) each – all of which sold out in a matter of weeks. Hundreds of people queued for hours outside shops if it was rumoured stocks of the toy remained within, and shop keepers, eager to capitalise on the phenomenon, ran lotteries which offered Tamagochi units as prizes. Unbelievably, Tamagochi home pages have begun appearing on the Internet, such is their owners' fanaticism for the scene.

The most surprising element of this sensation is that the Tamagochi is appealing more to businessmen and women than school kids. This is particularly worrying considering recent rumours which suggest that, to keep the Tamagochi happy and healthy, it has to be tended to every half an hour, regardless of day or night. Expect a downturn in the Japanese economy, then, as sleep-deprived workers stumble zombie-like around offices mumbling about beloved egg-shaped life forms. And there's more potential bad news afoot for the Nikkei index – Tamagochi 2 is due out soon...

Dressed to kill

Since the phenomenon was introduced two years ago, the Costumeplay – a special club night where videogame and manga enthusiasts turn up dressed as their favourite characters – has rapidly increased in popularity. A recent evening at the Twin-Star club in the district of Idabashi saw eager punters 'havin' it large style' to techno and game music while dressed in, amongst other things, *Resident Evil* and *Tobal No.1* garb. The participants, who compare the events to Hallowe'en, often have their costumes custom made – a process which can cost up to ¥80,000 (£400). Similar evenings are now taking place across Japan with prizes being given out to the best-dressed attendees.

Although this sounds like the sort of activity only indulged in by hardcore otaku, CosPlay-goers are usually stressed-out workers who simply want to relax. It's just that some of them can only relax while dressed as futuristic beat 'em up characters and zombie-slaughtering cops. Only in Japan...

M2: no show, no surprise

Panasonic has once again postponed an official announcement regarding the release of M2. A statement was originally promised for January, but this was later changed to February. Now the company has withdrawn any offer of an announcement date.

However, the first arcade games to use the technology could possibly be shown at the next Arcade Operator's Union (AOU) show in late February. As revealed in last month's **Edge**, Konami is developing a beat 'em up that incorporates the 64bit M2 technology, but news has since come to light that the company is also working on an M2 shoot 'em up called *Polikids*. Capcom's own M2 beat 'em up, however, is unlikely to make an appearance at the show unless a more advanced version has been kept under wraps. It is unknown if other Japanese coin-op developers have M2 titles in the works.

Edge hopes to have more details about Panasonic's M2 next month.







The Tamagochi handheld game is so immensely popular, people queued in their hundreds to buy one. (top left). The game has just three control buttons and a small LCD screen, but that proved enough to cause nationwide hysteria






Tobal No.1 (right), *Resident Evil* and *Fighting Vipers* (next right) characters. At least it keeps them off the streets

(out there)

REPORTAGE FROM THE PERIPHERY OF THE VIDEOGAMES INDUSTRY

Games for girls

The well known and, until recently, highly accurate, axiom that girls generally do not play videogames may be on the verge of abolition. *Barbie Fashion Designer*, a PC CD-ROM from Mattel, sold 200,000 copies in its first month on release in the States, and Mattel has now shipped more than 500,000 units in the US alone. Most impressive, though, is the assertion printed in the Washington Post, that the title has already outsold *C&C: Red Alert* – one of the most acclaimed PC titles of last year.

This level of success is in marked contrast to the fate usually suffered by games aimed at girls. Publisher Her Interactive saw its premiere title, a PC dating adventure called *McKenzie and Co*, fail miserably when released at the end of '95 and even *Barbie* has seen her fare share of failure in this difficult market: *Barbie Goes Shopping* bombed spectacularly on the Game Boy a few years ago.

Mattel puts some of the success of its latest product down to wise marketing. Instead of advertising *Fashion Designer* in videogame mags, which girls invariably don't read, the company used ads on children's television and displays in toy departments to attract the attention of young female consumers. Mattel has also been careful to give *Fashion Designer* a more creative slant – perhaps to combat one of the criticisms usually aimed at videogames by girls: that they're a completely pointless waste of time.



Hence, any Barbie clothes designed with the product can be printed out onto thin fabric and used to clothe a real doll. *Barbie Goes Shopping*, of course, missed out on this vital creative element.

Inevitably, a rush to produce similar products is imminent. Her Interactive, which specialises solely in videogames aimed at girls, has two new products due out this year and no doubt more will follow from similar companies desperate to cash in on the success of *Fashion Designer*.

But is current optimism in the girls market misplaced? *Fashion Designer* was, after all, released just before Christmas, a time when parents tend to make many of the purchasing decisions. Many of those 200,000 copies of Mattel's game could well be lying unused next to family PCs across America. Also, even if the product were appreciated by its target audience, it is likely to be more because of Barbie herself – one of the most recognisable icons of the 20th century – than the CD-ROM content. Non-Barbie games, however good, could well be eternally doomed to failure.

The product has also provoked a smattering of adverse comment in the States. Feminist critics see Barbie as a bad influence, claiming that she reinforcing stereotypes of female beauty and forces girls to live up to impossible physical standards. In turn, some industry critics are disappointed that, if an upsurge in the girl's multimedia market does come about, it should be led by such a poor role model. However, exploiting stereotypical behaviour is nothing new in videogames - *Doom* is, after all, a hi-tech version of boys playing soldiers.

Whatever the political and social implications of Barbie's success are, though, a question mark remains hanging over the future of the girl-specific game market. *Fashion Designer* is aimed at a very specific, and very young age group – one that is more interested in finding new ways to interact with Barbie than it is in finding new ways to interact with a computer. Companies like Her Interactive have to discover what sorts of games will appeal to older girls if they are to create a steady growing audience.

Ultimately, a gender-specific software market may not even be necessary. Titles like *Tetris* and *Puyo Puyo* have hugely appealed to female gamers – it's the violent stuff that girls generally reject. What the game industry needs to do, then, is increase awareness by advertising its non-violent games in new areas. So, *Super Mario 64* adverts in Just Seventeen? Stranger things have happened...



Game site and patch



GT Interactive's site (above). Impulse 1's site (right) will appeal to fans of id Software's *Quake*



Where do you go if your games are bugged, you're sick of the same old action or you just feel the need to cheat? All the answers are at the other end of your modem

You know the scenario. You might even have experienced it first hand. You rushed out to buy a game the second it arrived in the shops, only to find that the developers had been in a similar rush to actually get it out on time, leaving a tidy pile of 'undocumented features' lurking in the code. In the past, the only option would have been to take it back to the shop in the hope that a more recent version had turned up, or maybe take your grievance direct to the publisher, and eventually receive a patch disk that fixed the problems.

That was then and this is now. A sizeable portion of the Internet is taken up by game-related sites, many of them simple fan pages, but a lot of them invaluable sources of patches and other programs to help users really make the most of their games. The trick is to know where to go for them. As a starting point, **Edge** would suggest Games Domain (http://www.gamesdomain.co.uk/) or Happy Puppy (http://www.happypuppy.com/), the Net's two leading general-purpose gaming sites.

Here you'll find the latest patches and updates, all the cheats and tips you'll ever need, as well as an assortment of other gaming goodies. If you don't want to risk buying an incomplete, or just plain bad game, you'll also find a host of demos available for download so that you can get a taster of what you'll be buying.

Demos are big business, and most software houses now have their own sites where you can get your hands on them first. Of course, Apogee really set the demo scene

SegaSoft turns on heat

SegaSoft is currently running beta tests for its own online gaming network, Heat.

The service promises high-speed/low-latency multiplayer gaming and will include popular CD-ROM titles, as well as games only playable on this site.

Heat is catchily described on SegaSoft's brilliantly designed website as a 'safe' outlet where violent tendencies are not only accepted, they are rewarded with prizes and stuff'. It should be up and running properly by the Spring.

To sign up as a beta tester, visit: **www.segasoft.com**



Happy Puppy's website is among the most popular game-related spots on the Internet, offering a healthy amount of downloadable data

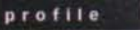
rolling years ago, and it's still churning out titles, the most eagerly awaited ones coming from its 3D Realms division (http://www.3drealms.com/). If you still haven't tried *Duke Nukem 3D*, that's the place to find it. Other corporate websites worth a look for demos and patches are Virgin (http://www.vie.com/), GT Interactive (http://www.gtinteractive.com/), Interplay (http://www.interplay.com) and id, developer of *Quake* (http://www.idsoftware.com).

With *Quake*, the patching and hacking scene has gone into overdrive. Its open architecture makes it a doddle to do all sorts of things to the game, more so than with its predecessor, *Doom*. All manner of *Quake* enhancements are available over the Net, from simple cosmetic changes through to total reworkings (one particular favourite at the moment is a *MechWarrior 2* patch, complete with hulking robots and killer weapons). The sheer adaptability of *Quake* is reflected in the number of sites that cater for *Quake* developments. **Edge** recommends: Impulse 1 (http://easyweb.easynet.co.uk/~inferno/impulse1/), The Quake Stomping Grounds (http://www.stomped.com/) and Blue's News (http://www.bluesnews.com).

Other developers are catching on to the whole hacking scene now, and positively encouraging the general public to delve within their games and have a go at doing it better. Last year's *Command & Conquer: Red Alert* came complete with an editor for creating scenarios, so it's no surprise that sites have appeared offering new maps to download. If you've taken *Red Alert* as far as it will go, then help yourself to a new challenge at http://www-scf.usc.edu/~nieh/redalert.html.

Even when developers don't make it easy to do your own thing, someone's bound to find a way. Sick of racing the same old cars round the same old tracks in *Grand Prix 2*? Give the vehicles a lick of paint and change those dull old hoardings while you're at it – you'll find all you need at http://ourworld.compuserve.com/homepages/tkellaway/gp2.htm.

Disregarding all of today's technology, however, some gamers wish that things could be like they were in the good old days, when games were simpler and 64K was a positively elephantine amount of memory. Those types, who rue the day that they sold their Colecovisions and Spectrums through the classified sections in their local newspapers, bring back happier days with a visit to Archaic Ruins (http://www.futureone.com/~damaged/AR/), the Internet's premier emulation site. It holds programs to emulate just about every old format of yore, from the Speccy through to the SNES, and by hunting around it's possible to find games to go with them. The process isn't strictly legal, of course, but hey, the underground spirit is part of what makes the Net so much fun. (Look out for a full guide to emulators in next months' issue...) E



Hiroshi Yamauchi

Many people put Nintendo's success down to the talents of software supremo Shigeru Miyamoto. However, without the ruthless and uncompromising business acumen of the company's president, Hiroshi Yamauchi, it would be nowhere...

Photography Antonio Pagnotta da Fonseca

president, Nintendo Co Ltd

You don't mess with Nintendo president **Hiroshi Yamauchi**, because he never loses. At least, that's how it's always been. Until now, where the videogame industry has seen Sony raise the stakes with one of the most successful product launches of the decade. Now, the most powerful man in the videogame industry appears to be on the back foot.

Nintendo has never had to trade blows with its competitors, remaining resolutely aloof. However, in recent times the steely eyed Yamauchi has uncharacteristically taken to getting his hands dirty by publicly attacking the PlayStation. Competition is a word that he struck from his dictionary some 48 years ago.

In 1949 Hiroshi Yamauchi was appointed president of Yamauchi-Nintendo Corporation. His first presidential move was to fire anyone and everyone who might oppose him. Every manager, no matter how senior, found themselves in danger of losing his job. The recent death of his grandfather, though tragic, provided the young Yamauchi with the opportunity to rid his company of the conservative elements that he despised, allowing him to rule unopposed. Things would never be the same again.

At that time, Nintendo's core business was playing cards, or, more specifically, 'Hanafuda', the traditional Japanese variety popular with the low-life gambling dens that had sprung up in Japan since the war. The cards turned a modest profit, but nothing spectacular, and a frustrated Yamauchi decided to embrace the more fashionable, plastic-coated cards favoured by westerners. He struck a deal with Walt Disney, put Mickey Mouse on the backs of the cards and virtually doubled the company profits over night. In 1959 he went public and Nintendo Company Ltd was born.

It has been said that if you want to know how Yamauchi thinks, you have only to observe the way he plays the Japanese game, Go

Even then, competition was a secondary concern. Nintendo had a virtual monopoly thanks to its extensive distribution system which put NCL cards in just about every outlet, from tiny shops to the newly established department stores and toy shops. That was Yamauchi's first success. His second was hiring a young engineer called **Gumpei Yokoi** to head up a new internal division – not for cards, but for games. According to **David Scheff**, author of 'Game Over', when Yokoi asked what he should make, Yamauchi replied, 'Something great.' It preceded the N64 by many years, but in 1970, 'something great' amounted to a hugely successful toy. Called the Ultra Hand, Yokoi's plastic robot arm sold over 1 million units and proved not only that he had a natural flair for innovation, but that Yamauchi had an instinct for backing the right product at the right time. It was this instinct that lead him to push ahead with a games console when every market in the world had declared videogame consoles a financial dead end.

It has been said that if you want to know how Yamauchi thinks, you have only to observe the way that he plays the Japanese game, Go. One of the most complex boardgames to learn, players spend many years developing their skills and moving up through the ranks, which are graded like a martial art. Only the very best tacticians could ever hope to move beyond Q10, the 'black belt', to reach a Dan grade. Yamauchi is a seventh Dan master and his playing style has been described variously as forceful, aggressive, open, flexible in defence and unstoppable in the face of weakness.

Arnold Greenberg, chairman of the then-thriving Coleco, never got around to playing Go with Yamauchi. If he had, he may never have had to face the explosive wrath at the Consumer Electronics Show in 1983...

Nintendo was in negotiations with Atari at the time. Lacking the distribution and influence needed to conquer the US market, Yamauchi believed the best chance for his new Famicom console was to license it to the then-struggling, but still highly regarded, Atari Corporation for exclusive US distribution rights. The deal backfired when Coleco ran a computer version of *Donkey Kong* on its new Adam system at the CES. Atari execs saw it, and believed Nintendo had betrayed them. What use was the Famicom without one of the most successful arcade titles ever? Yamauchi acted decisively. He arranged to meet Greenberg and his associates, but he wouldn't tell them why. In 'Game Over', Scheff describes what happened:

'Yamauchi entered the room abruptly and, without addressing anyone, stood at the end of the table. He became, as one of those present put it, 'unglued'. He began with a breathy, high-pitched tirade in a Marlon Brando monotone and quickly became loud and abusive. With a piercing cry, he swung his arm in an arc in front of him, shooting his outstretched index finger toward Greenberg... When Greenberg turned to [**Minoru**] **Arakawa** [president of NOA] for help, he was met with a cold stare. By the time Yamauchi wound down, no one in the room said a word. The translator finally began to speak. "Mr Yamauchi is very upset," the man said.'

Needless to say, Coleco buckled. Yamauchi threatened to serve a lawsuit that would 'leave nothing of the company' if it continued to use *Donkey Kong* to promote the Adam. As it was, Atari never intended to launch the Famicom. The company wanted to buy the rights, bury the system and leave the way clear for its own Atari 7800. In the end, it didn't have the cash and Nintendo had to launch the Famicom itself, as the NES. Yamauchi must have since breathed a sigh of relief that Atari never got its incompetent hands on Nintendo's seminal console. If this encounter proved anything, it was that there was only one way to do business with Yamauchi: you did it his way, or not at all. This was something the US market found hard to appreciate, not least because of restrictive licensing agreements imposed upon it during the *Mario* boom years. Yamauchi had a plan. If he could control the flow of software for his machine, then he could control the quality, and if he could do that, his instincts would ensure that only the best titles would reach the streets. As long as Nintendo could maintain the quality, there would be no competition.

But competition is healthy. As Nintendo grew into the most successful videogame company of all time, its iron will began to wane. Sega, whose Master System failed to make even a dent in Famicom sales sheets, beat it to market with the next generation of home gaming ▶



Nintendo's core business for years was the manufacture of high-quality playing cards for use in professional gambling circles



The company's Kyoto HQ is as secure as Fort Knox. No one gets in here without an invitation

◄ systems. The Mega Drive hardware, along with a hip marketing campaign, left Nintendo scrabbling to catch up in the lucrative US market. Yamauchi had underestimated the opposition. He couldn't even conceive of a competitor, much less one armed with superior technology. While the Mega Drive was only mildly successful in Japan, its sales elsewhere in the world were soaring. Characteristically, Yamauchi decided to ignore the Sega success and concentrate on his latest project, the 16bit Super Famicom. He would rely on his instincts to see him through. When the Super Famicom was launched in Japan in 1990, it stormed the market. Yamauchi knew that Sega's weakness was its home market, and, true to form, he became unstoppable.

As a Japanese limited company, Nintendo will always put its home market ahead of its foreign commitments. Yamauchi's native success with the Super Famicom saved the day, though it was largely thanks to another of his intuitive successes – bringing the best out of designer **Shigeru Miyamoto**, a young man who had impressed the stern chairman with his lively, childish manner, some ten years previously. He hired him to come up with another 'something great', and he did. Over and over again. First *Donkey Kong*, then *Mario*, then *Super Mario* and eventually, of course, *Super Mario 64*. Once again, Yamauchi managed to keep the competition at bay. Not that he considered Sega a serious competitor, with sales of the Super Famicom approaching 50m units worldwide.

But that was then, and this is now. Although the N64 is surging ahead of the Saturn and approaching PlayStation sales figures in the US, in Japan, the most precious of Yamauchi's markets, all is not so rosy. Both the Sony and Sega machines are firmly entrenched thanks to a combination of a two-year lead and an abundance of the most popular Japanese genres, beat 'em ups and RPGs. Conspicuously, the N64 currently has neither to recommend to its audience. Nintendo now has serious competition on its own soil – worse, Yamauchi's legendary instinct is beginning to look fallible...



Although the N64 is surging ahead of the Saturn and approaching PlayStation figures in the US, in Japan, the situation is not so rosy

1995's Shoshinkai show was a key event for the Nintendo 64. It was here a launch date would be announced, playable demos would be available for the first time, and, most importantly, Yamauchi would have to convince an increasingly cynical audience of his console's benefits – a challenging task, considering the growing success of the PlayStation and Saturn.

Things didn't begin well. Just days before the show, Yamauchi – once again exhibiting his notoriously single-minded business practice – pulled ten playable demos from the itinerary, alienating both 'Dream Team' developers and avid gamers in one fell swoop. In their place was an admittedly brilliant playable version of *Mario 64*, and a very early version of *Kirby Bowl 64*.

On the first day of the event, however, Yamauchi made up for this controversial move with a vitriolic speech bitterly condemning the current game industry. Here he warned of the dangers present in releasing too many poor games, and berated software companies for their business tactics: 'They will try to develop as many titles as possible so at least one of them will be a hit. The users will simply reject these third-rate software titles.'

His alternative was simple – to intricately control the amount and quality of thirdparty development so only the best titles would be released and gamers would not become alienated by a flood of poor software. In this way he painted Nintendo, and its highly controlled 'Dream Team' philosophy, as the saviour of the software industry. Onlookers were, for the time being, grudgingly convinced.

It is a policy Yamauchi still stands by, as he pointed out at the recent 'Foreign Correspondents Club' conference in Tokyo: 'Some argue the more software there is, the better the sales can be, but Nintendo is against this kind of opinion. We have elected to release fewer titles, and only splendid games will be introduced for the N64. That was our big policy for the introduction of the N64 to the US and Japanese markets.'

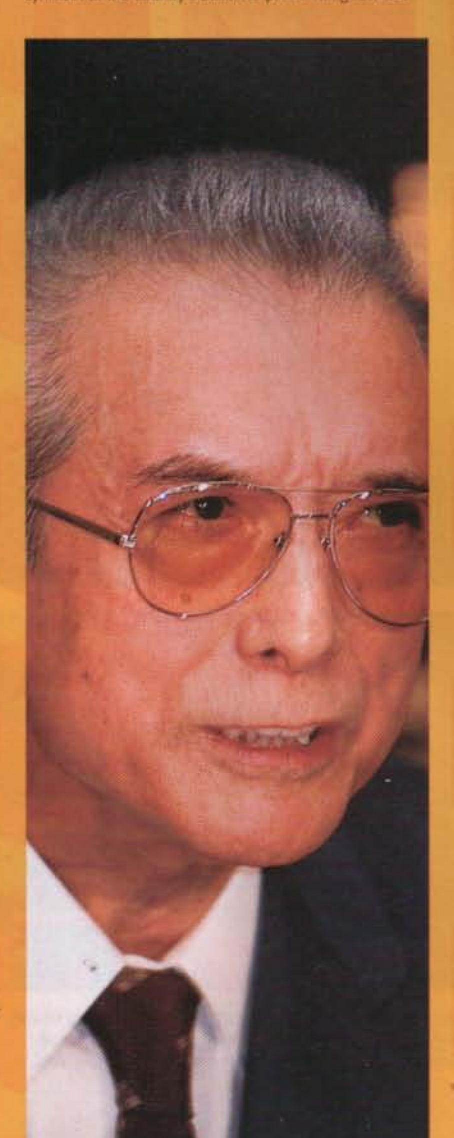
But, following 1995's Shoshinkai event, it would be a

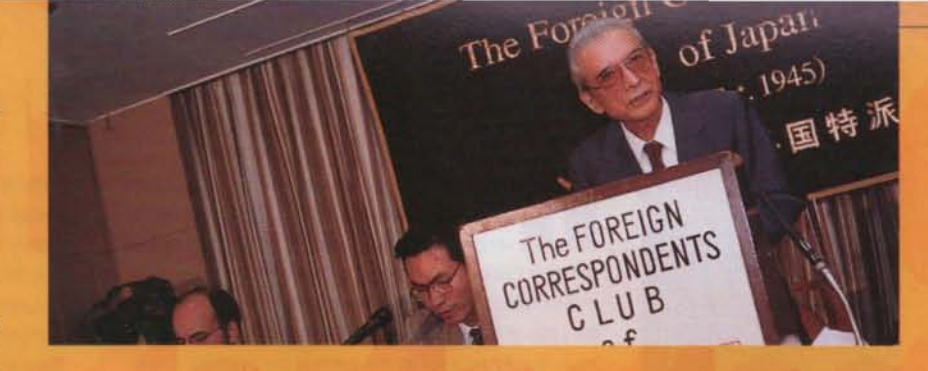
long time before material proof of the N64's true abilities were delivered. Yamauchi, who had always gone to great pains to stress the difference between Nintendo's console and the 32bit machines, was determined not to launch the N64 within a year of the PlayStation and Saturn. A year, he felt, would be enough to stress the technological advance represented by his machine without keeping people waiting too long.

All did not go according to plan, as Yamauchi himself admitted at the conference: 'The N64 is very different in terms of quality compared to its present competitors and we could not achieve the progress in designing the hardware and software as quickly as we originally planned. Our competitors introduced their 32 bit machines around December 1994 and Nintendo hoped to make its hardware available at the end of 1995, at least in Japan. But, in fact, because of the difficulties in coming up with good hardware and software, because of the vast improvements in quality involved, it was delayed by seven months.'

For the first time in Nintendo's history, the company had missed two Christmas seasons with a hardware launch. 'It was a big handicap for Nintendo,' admitted Yamauchi, and he was right. The Japanese business press, impressed by the quality of Sony's machine and distinctly unimpressed by the N64 launch delay, began speculating over Nintendo's position as market leader. Were the company's, or more specifically Yamauchi's, days of dominance numbered?

Six months on from the Japanese launch and the slightly disappointing domestic sales figures reflect the cynicism of the country's business press. Things started





well with a complete sell-out, but, by the end of '96, Nintendo had shipped a modest 1.85m machines in Japan and there were still 140,000 available at retail level. In America, 2.41m machines were shipped in the first three months and sold out completely.

Part of the problem lay with the quality of the software – something Yamauchi had stipulated would not be a concern. Although *Super Mario 64* was everything Nintendo had promised (and more besides), other titles have failed to live up to expectations, despite the supposedly strict quality control measures. A good example is *Mario Kart 64*. At Shoshinkai '95, Yamauchi boasted this title would indicate just how advanced the N64 was: 'People will not be able to see the uniqueness of *Mario Kart* until it is at least 80% finished.'

In the end, however, *Mario Kart*, although a thrillingly addictive multiplayer title, was not the triple-'A' product gamers had been promised. It is, in many respects, simply a graphically superior version of the SNES original, with visuals falling some distance short of those so famously generated by *Super Mario 64*.

So how did this important game get released in its present state, despite Yamauchi's assurances about software quality? One reason may be that Yamauchi doesn't play videogames. He dismisses the importance of this, citing the fact that 'the N64 has been praised by people in Japan and the US.' Perhaps if the game had been playtested more comprehensively prior to its release it would not have slipped through the net as a slightly flawed product. In effect, the presence of this title, and much worse offenders such as *Cruis'n USA* and *Shadows of the Empire*, show that the Nintendo quality assurance programme is far from infallible.

There are also problems more deeply embedded in Nintendo's relationship with Japanese developers. Last year, Square Soft – which had produced countless top-selling titles for the NES and SNES – announced that it would not be producing games solely for the N64. Since then, the company has released *Final Fantasy VII* on the PlayStation to glowing reviews and incredible sales. Enix, responsible for the influential SNES series, *Dragon Quest*, has also moved over to the PlayStation to further the RPG saga, which is perhaps a more poignant blow: Yamauchi named the proposed N64 version of *Dragon Quest VII* at Shoshinkai '95 as one of the titles to judge the merits of the machine's Bulky Drive (64DD) by.

Typically, though, Yamauchi now vehemently plays down the relevance of such setbacks: 'People who are knowledgeable about this matter know that it will take four years for **Yuji Horii** to develop a new *Dragon Quest* title. I would like to ask, who can be sure that even a talented person like Mr Horii can, in four years, design a game better than its predecessors? During this four-year period, Mr Horii could have a slump, or an illness... Anything could happen.' This is a rather unconvincing statement, however.

Square managed to develop *Final Fantasy VII* within two years, and, more importantly, if Yamauchi really believed it would take Horii four years to develop a new *Dragon Quest* title, why did he announce that *Dragon Quest VII* would be ready for the launch of Nintendo's Bulky Drive accessory?

Yamauchi is just as dismissive when the topic turns to Sony. When asked at the conference if he was concerned about the company's plans to release 800 PlayStation titles in '97, his reply was filled with venom. 'The software market is in a critical condition because of a flood of unimportant, boring videogames. It reminds me of when Atari was enjoying a boom in the USA with the first generation of videogames. I had the chance to meet up with the company's management at the time and they were saying Atari would be one of the biggest and most profitable US corporations. But, in fact, that was the company's peak time. Within two years the industry Atari knew had almost disappeared. A flood of uninteresting videogames meant that most users abandoned the company's game system. Entertainment is not a necessity to daily life. When it is not interesting we can leave it and ignore it. You point to 800 titles. I just wonder who can actually buy 800 titles! I'm afraid you just do not realise that many of these will sell less than 1,000 copies. Few retailers and people in the distribution channel are making money. In fact, what happened to Atari can happen any time in Japan!'

Not surprisingly, Yamauchi believes this year will be the turning point in fortunes for the 32bit consoles. He is also convinced that talented programmers and designers who want to develop for the N64 are being held back by companies determined to produce for the 32bit platforms. Companies which he asserts are doomed because they mistake quantity for quality. 'Some people are saying this is the era of software in the industry, but in my mind it is not. It is not the age of the software. It is the age where only selected software can survive.'

There is no doubt that as long as games like *Mario 64* are being produced and Yamauchi's sound business mind stays focused, Nintendo will retain its quintessential place in the games industry. But there are chinks in the big boss' armour. Though he is dismissive about his rivals, he is objective enough to realise that Nintendo is not completely infallible: 'If you ask me about the effect on Nintendo that *Dragon Quest*'s departure has had, I would have to say there is no concrete effect. However, in Japan, image is very important and can have a profound influence upon the psychological or spiritual well-being of a company. I cannot deny this announcement has had some psychological influence on Nintendo. I think it is true we have been hit psychologically.'


Mr Yamauchi leaves the press conference with NCL PR supremos Yasuhiro Minagawa (left) and Hiroshi Imanishi (far left)

Prescreen Alphas

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Infogrames, which recently merged with British publisher Ocean, is poised to make a triumphant return to form following the mediocre *Alone in the Dark* clone *Timegate* last year with *VR Rally*, currently in development for the PlayStation. What marks it out from the likes of *Rage Racer* is the fact that Infogrames' coders have found a way to run the game in the machine's little-used hi-res mode, which gives the title its characteristic arcade-style appearance. This involves writing directly to the system's GPU and GTE processors, without relying solely upon the *C* libraries provided by Sony. If they really can pull it off, with a smooth 3D engine and detailed scenery, the PlayStation might well give the N64 a run for its money, as *Rally* already looks as good, if not better, than any of the racers currently lined up for Nintendo's machine. The game will feature a split-screen mode for twoplayer games and a split-screen link-up enabling four players to race at the same time. Judging by the screenshots, which use very little fogging, the game should also boast an impressively low level of pop-up. More on this next month.

Bullfrog's long-awaited strategy epic *Dungeon Keeper* looks as if it may finally be ready to ship. **Peter Molyneux** instigated a rewrite of the game last year after it failed to live up to his high expectations, and it looks as if the wait may have been worth it. Cosmetics are never the best way to judge a Bullfrog title, as they consistently rely on complex gameplay rather than impressive graphics, but the most recent shots sent to **Edge** have some incredibly impressive lighting and textures, and Bullfrog has listened to early criticisms and included an SVGA mode for those with high-spec PCs. Once *Dungeon Keeper* is boxed, Molyneux will almost certainly leave the company, but development of his remaining projects, including *Populous 3*, will continue as planned without him.

Having broken away from perennial loss-makers Mindscape, Mindscape Bordeaux has changed its name to Kalisto and will be releasing a number of major titles this year. *Dark Earth* is a PC adventure game blending polygonal hi-res characters with amazingly detailed prerendered backgrounds and looks to be a considerable advance over the ageing *Alone in the Dark* series, looking more like Square's *Final Fantasy VII* than an agonisingly slow PC title. The game will be the first in a series set in an







Bullfrog's much-delayed *Dungeon Keeper* is now almost complete, and now exhibits impressive realtime lighting effects



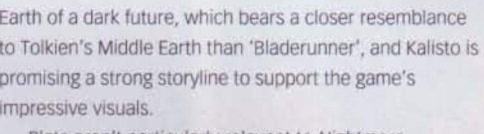






Infogrames will no doubt surprise many with its incredible-looking *VR Rally* for the PlayStation. The car models and detail promise to be the most advanced yet seen on the machine, thanks to some neat coding tricks





Dark Earth, from Kalisto, is blessed with some of the most atmospheric and detailed rendering yet seen in a PC adventure title. Kalisto has recently split from Mindscape and is planning to develop across all platforms. Its Power VR-specific racing game, *Ultimate Race*, is now complete and will be reviewed next issue



Kalisto's *Nightmare Creatures* (below, left) resembles a particularly gruesome *Tomb Raider*. The atmospheric fog effects are well done, and the *Quake*-style monsters that lurk in the shadows are genuinely scary



Earth of a dark future, which bears a closer resemblance to Tolkien's Middle Earth than 'Bladerunner', and Kalisto is promising a strong storyline to support the game's impressive visuals.

Plots aren't particularly relevant to *Nightmare Creatures*, a Kalisto title due for release on PlayStation and PC. Choosing one of two characters, the player must battle his way through 15 varied levels, all set in Victorian London, complete with transparent mist effects, creepy iron gates and some genuinely scary-looking monsters. Characters have a variety of moves available, from basic hand-to-hand combat to the rather more involved use of weapons.The emphasis is clearly on action blended into a *Resident Evil*-style chilling atmosphere. **Edge** will be taking a closer look at Kalisto and its forthcoming games in next month's issue.



Capcom's *Battle Circuit* is a fourplayer beat 'em up planned for the arcade

Gremlin Interactive has high hopes for its '*Elite* on a planet' game, *Hardwar*, which is in the final stages of completion at its Sheffield HQ. The game looks set to be one of the most challenging games of the '97, as players juggle their trading and mercenary responsibilities with the need to keep the many and various factions at work on good terms. There's a storyline of sorts, but the majority of the programming team's efforts have been focused on AI, which should be advanced enough to make *Hardwar* a genuinely open-ended experience. In keeping with the current trend of blending popular culture into the gaming ▶



Pure Entertainment's first title, *Lunatik* (above), features breathtaking 3D landscapes courtesy of the increasingly ubiquitous 3Dfx card. The game is a top-down shoot 'em up and will also be released on the PlayStation. **Edge** will feature more on this company and its games next issue











Following the disappointment that was *The Neverhood*, Spielberg's games division, Dreamworks Interactive, will be hoping that *Lost World* (above) is a huge hit





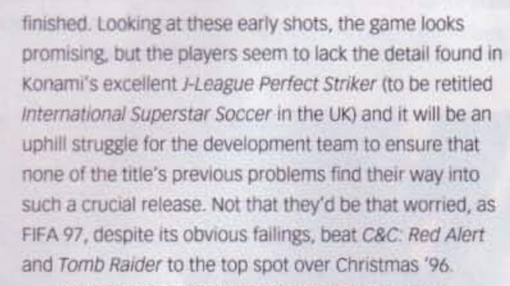
Activision's *Dark Reign* is a *Command and Conquer* clone with a weird time-travelling plot that sees the player battling to eliminate future warmongers





Data East's shoot 'em up, *Skull Fang*, should give the Saturn's capable sprite-handling capabilities a real work-out





Gremlin's *Hardwar* features some innovative science-fiction design coupled with open-ended trading-based gameplay reminiscent of *Elite*

◀ scene, Gremlin has employed the services of underground dance label Warp Records to provide the game's soundtrack. It's unlikely that any original material will be written for the title, with Warp instead providing ten tracks from its extensive back catalogue. As if that wasn't enough, Designers Republic (the crew behind Wipeout's distinctive imagery) has also been involved, creating in-game signs and logos.

After the near-unanimous kicking the recent *FIFA 97* received from the videogaming press, it wouldn't be unreasonable to expect EA Sports to give the gold-plated license a break. As reported in **E**39, *FIFA 64* is almost finished. Looking at these early shots, the game looks promising, but the players seem to lack the detail found in Konami's excellent *J-League Perfect Striker* (to be retitled *International Superstar Soccer* in the UK) and it will be an uphill struggle for the development team to ensure that none of the title's previous problems find their way into such a crucial release. Not that they'd be that worried, as FIFA 97, despite its obvious failings, beat *C&C: Red Alert* and *Tomb Raider* to the top spot over Christmas '96.

Fans of vertically scrolling shoot 'em ups will be pleased to know that Data East's recent coin-op, *Skull Fang*, is making the leap to Saturn next month. Though its

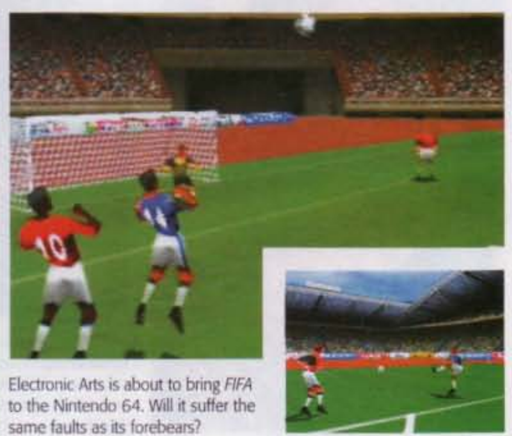






Rage Software's *Darklight Conflict* is a PlayStation space shoot 'em up





Electronic Arts is about to bring *FIFA* to the Nintendo 64. Will it suffer the same faults as its forebears?







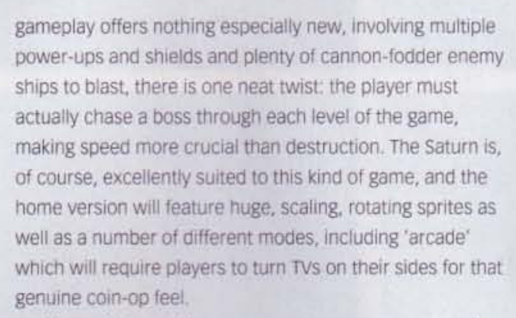
PlayStation title *Reciproheat 5000*, from Japanese developer Xing, adds a new twist to the racing genre by racing aircraft instead of cars. Players get to use speed-ups, take risky routes and knock each other into cliff faces to win







Omikron (above), from Gallic coders Quantic Dream, is a PC action adventure in the style of Adeline's *Fade to Black*, on a bigger scale



gameplay offers nothing especially new, involving multiple power-ups and shields and plenty of cannon-fodder enemy ships to blast, there is one neat twist: the player must actually chase a boss through each level of the game, making speed more crucial than destruction. The Saturn is, of course, excellently suited to this kind of game, and the home version will feature huge, scaling, rotating sprites as well as a number of different modes, including 'arcade' which will require players to turn TVs on their sides for that genuine coin-op feel.

Meanwhile, as id beavers away on ever more complex 3D engines, its kindred spirit, Raven Software, is planning to use the *Quake* technology in its forthcoming *Gauntlet*-style fantasy action title, *Mageslayer*. The player must make his way through a number of mediaeval castle levels, collecting five powerful relics, and may choose his character from any one of four clan types: Warlocks, EarthLords, Demons or Inquisitors. Each has its own relative strengths and weaknesses, some possessing more magic and others relying on the less cerebral art of hacking ▶



Sky Target, from Sega, is another coin-op soon to land on the Saturn

Psygnosis is bringing its highly successful PlayStation title, *F1*, to the PC, courtesy of the 3Dfx accelerator board. A beta version recently played by **Edge** revealed a stunning level of detail and an impressive 30fps update speed



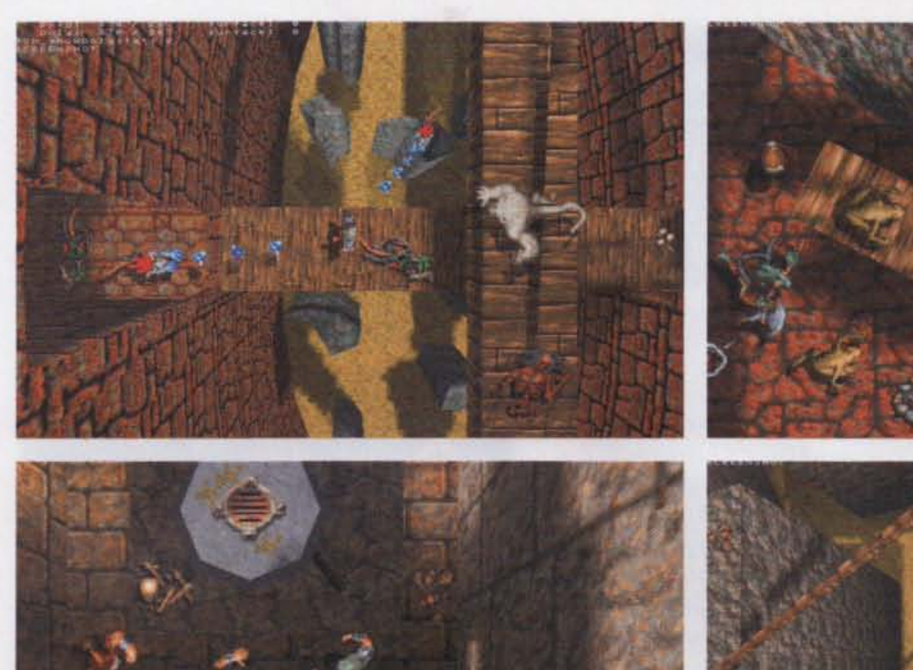








One of Activision's biggest releases of the year will be the 3D adventure shoot 'em up, *Apocalypse* (above), features the digitised and motion-captured body of 'Die Hard' action star Bruce Willis. Apparently, the actor has said of the project: 'When these cats at Activision showed me the new graphics and interaction on *Apocalypse*, I was blown away'







Though its characters are sprites, *Mageslayer*, from Raven Software, makes full use of the *Quake* engine's strong 3D abilities. Set in a series of castles, the game bears a strong resemblance to Atari's classic, *Gauntlet*. It certainly makes a refreshing change from the glut of first-person games currently on the horizon, and will take full advantage of current PC 3D-accelerator technology

◀ monsters to pieces. The real potential for *Mageslayer* lies in its multiplayer mode, which will allow teams of adventurers to play on the same map. The *Mageslayer* team is made up largely of programmers and artists from Raven's previous success, the first-person *Doom* clone, Hexen, as well as a number of new additions, all eager to get to grips with the ground-breaking *Quake* technology.

The 3Dfx bandwagon is moving on apace, and will undoubtedly gain yet more momentum with the imminent release of an update of Psygnosis racer, *F1*. The game looks stunning, with bi-linear filtering, fogging effects and 16bit colour, all running at a smooth 30fps. Visually, at least, it leaves the likes of *Grand Prix 2* on the starting grid.

The PlayStation also has yet another racing game in the pipeline, but this one's a little different. Instead of racing cars, the player must race aircraft in *Reciproheat 5000* from Japanese developer, Xing. There'll be four stages, covering courses offering mountains, canyons and snow as backdrops to the innovative action.

Activision, which is currently preparing a new robot-game license, *Heavy Gear*, is also developing a third-person 3D shoot 'em up entitled *Apocalypse*. The game recently hit the headlines for its well-publicised use of Bruce Willis. The actor has had his features digitised and





Comanche 3 for the PC is almost complete. US developer NovaLogic, which pioneered the VoxelSpace technology, has refined the engine to include polygonal vehicles and buildings, and a super-hi-res mode



Konami's efforts to introduce more original coin-ops looks like a trend that's set to continue. *Hang Pilot* bears a close resemblance to *PilotWings 64* and looks excellent. Two monitors are included on the cabinet – one providing the view ahead and the other giving a detailed view of the ground. More on this next issue

















texture-mapped onto the player-character's face. (Presumably, he'll be hoping that the wonders of modern technology will give him some of his hair back.)

On the coin-op scene, Sega has embraced the horror genre with its forthcoming coin-op – reputedly one of the bloodiest games ever – *House of the Dead*. The game uses Model 2 technology to create a *Virtua Cop*-style gun game. Unlike *Virtua Cop*, however, the player will be able to negotiate the 3D environment vertically as well as horizontally, climbing walls and balancing on ledges to progress. No release date has yet been set, but Hallowe'en might be appropriate...















House of the Dead from Sega uses the Model 2 technology to create a creepy haunted house for players to blast their way through using a light gun. Hammer horror meets *Virtua Cop*, with huge amounts of blood and gore to add to the mayhem

The *Ninja* team (below, clockwise from top left): Brian Tomczyk (artist), Joby Wood (designer), Dan Scott (PlayStation programmer), Jerr O'Carroll (animator), Martin Jensen (Saturn programmer), Del Leigh-Gilchrest (PlayStation programmer)







Photography: Michael Donald



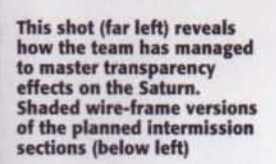


Ninja

With the classic *Tomb Raider* under its belt, Core is working on a **martial arts extravaganza** of epic proportion. Can lightning strike twice?



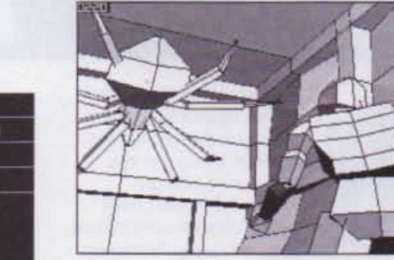


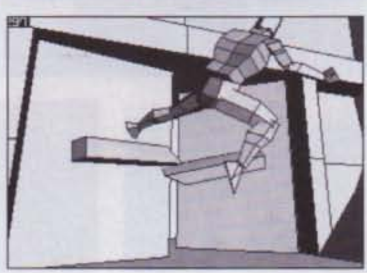


This shot (far left) reveals how the team has managed to master transparency effects on the Saturn. Shaded wire-frame versions of the planned intermission sections (below left)



Format:	Saturn/PS
Publisher:	Core Design
Developer:	In-house
Release:	Summer
Origin:	UK









Those expecting *Ninja* to be *Tomb Raider 2* will be disappointed. Leading on the Saturn (the most popular format at Core), it was never intended to be anything other than an action-packed beat 'em up, an extension of 2D arcade combat platform games with traditional bosses and multiple enemies, as well as magical power-ups

Core Design, having produced one of the best games of 1996, is about to face its most important year ever, and a tall order: how to follow *Tomb Raider*? *Ninja* won't be its first attempt, (that's reserved for scrolling beat 'em up, *Judgment Force*) but the slightly harassed-looking five-man team piecing it together are hoping it will be proof enough that Core is on a roll. What they're certain of, even at this early stage, is that *Ninja* won't be *Tomb Raider Goes East*.

Designer **Joby Wood** prefers it that way. 'This is not the sequel to *Tomb Raider*,' he insists. '*Ninja* is an action game. There's an element of exploration, but there's far less of an emphasis on puzzle solving and there are virtually no empty screens. There won't be a moment when there's nothing happening on screen.'

Ninja takes its cues from arcade games *Shinobi* and *Rastan Saga*, melding tried-and-tested 2D gameplay with a realtime 3D environment. At least, that's the theory. At the moment, much of the specifics are yet to be defined. The computer screens that illuminate the *Ninja* development office are filled with sketches, half-finished *Photoshop* textures and cut-scenes that still leave much to the imagination. With this is mind, a Summer release may seem a little optimistic.

'That has occurred to us,' Wood confesses. 'We've done the hard part, though – the 3D engine. We built the whole thing from scratch. People thought that we'd just re-hash the *Tomb Raider* engine over and over. It's a great engine, but it's only really suited to that game, and we didn't want to be constrained by it. *Tomb Raider* was constructed differently, it was all interiors, which is fine, but you need a different approach when you're creating a landscape.'

Tomb Raider was built on a giant grid, with connecting rooms. *Ninja* consists of ten levels: some interiors, some exteriors and some a mixture of both, which creates as many opportunities as it does problems. There is, for example, a more varied visual mix. Despite its unrivalled gameplay, *Tomb Raider*'s environments were never that varied or detailed, the emphasis being on the dynamic camera. That level of interaction won't be possible in *Ninja*, and nor is it desirable in a game that relies more on combat than pixel-perfect leaps and dives. The in-game view is closer to isometric than full 3D, particularly during the exterior levels, and while the team insists that there's been no trade-off, this seems to afford *Ninja* a more detailed environment.

'This is not the sequel to *Tomb Raider*. *Ninja* is an action game... there are almost no empty screens'

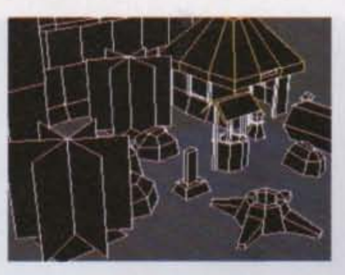
Joby Wood, designer

'All the effort so far has gone into creating this detailed world. We've been concentrating on how we can get this world to function, to hang together and appear solid. We've only just got to that stage,' concedes Wood. 'As for trade-offs, we still have a dynamic camera, but we don't allow the player to move it around. Originally, the in-game view used a very low camera, which got everybody really excited because they thought it looked like *Virtua Fighter*. The problem with that was that it became virtually unplayable, because we have multiple enemies attacking you from all sides. For that you need to pull the camera back. It's a smart camera, so it works it out for you. Those close-ups will be in there, but only if you're fighting one-on-one. We don't want aesthetics getting in the way of gameplay. Having said that, the world is far more detailed than *Tomb Raider*'s'

A glance at the beta-version Saturn engine confirms the wisdom of spending so much time creating such a versatile world editor. Lush forests, craggy mountains and sapphire-hued lakes scroll by as the ninja sprints around, and the detail is impressive. Camp fires litter clearings, buildings are filled with furniture, and plants sprout from between rocks. It's an altogether different feel to the stark, cavernous interiors of *Tomb Raider*. The game is being developed jointly on both the Saturn and PlayStation, but Core has always been keen on the Saturn, and its dedication to what is regarded by many as the inferior machine, will pay dividends with *Ninja*. 'It hasn't been easy,' says Wood. 'When we first started chucking ideas around for *Ninja*, the programmer, **Martin Jensen**, was just sat there thinking how an earth he was going to achieve all this stuff. He'd just got ▶



Though these shots may inspire comparisons with *The Last Ninja*, Core's game has more in common with Sega's coin-op classic, *Shinobi*



Creating the advanced world-building engine has occupied the team since the project began. The world is far more detailed than the dark interiors of *Tomb Raider*, with complex textures and vast exterior levels featuring mountains, ravines, bridges, caves and castles, all brimming over with monsters

the Saturn dev kit, and it was all new. You have to allow for that, and the changes that come with greater know-how. Sega's libraries are getting better all the time, and although we don't rely on them, it helps to know how the Saturn is evolving. We've done one thing in particular that we know will really impress Saturn owners.'

Core is now creating transparencies on the Saturn, and it's using it to impressive effect in *Ninja*'s river sections. This was something sadly missing from the Saturn version of *Tomb Raider*, and many believed it couldn't be done. So how *has* it done it? Artist **Brian Tomczyk** explains: 'We've used the Saturn's "Mode 7" to create the floor surfaces for the game [a similar effect to *VF2*] , and the performance benefit has given us the ability to tag objects and to depth-cue them as either above or below that floor level. If they're below, they have a palette change. There will be enemies beneath the surface that you can see swimming around. They'll leap up at you as you try to cross in the shallows. We've also used a similar effect for one of the magical weapons which creates a transparent blast. It's no big deal on the PlayStation, but it's a step forward on the Saturn.'

So far, there's been little talk of a plot, but that's somehow reassuring. The priority for this team is to get the gameplay right and to keep the momentum going. There'll be no in-game prerendered scenes to slow the pace, only tight, atmospheric cut-scenes using the in-game graphics engine. **Jerr O'Carroll**, lead animator, has a healthy disrespect for FMV and prefers to take the Japanese approach familiar to games like *Zelda*.

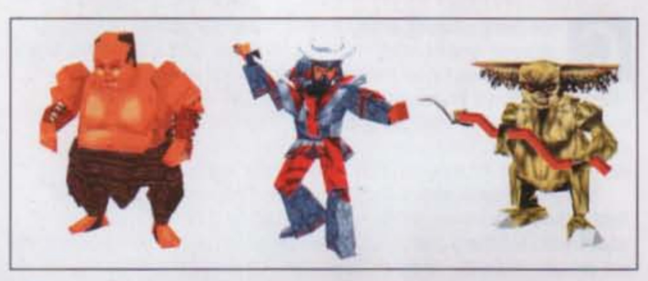
'The best way to do it is to have the cut-scene as part of the action. For example, you allow the player to walk into a cave, and then you let the game take over for a few seconds, just to set the mood. You might change the camera angle, zoom in or out. We'll use this technique to introduce the end-of-level bosses. It maintains the pace.'

And that's precisely what the *Ninja* team will be doing over the next six months. Having prepared the groundwork, they'll be piecing all their ideas together, and populating the world they've worked so painstakingly to create. 'What are we going to do now?' ponders Wood. 'We're going to sit down, take a deep breath, relax and get all our ideas down on paper. There's a lot to do, but I know it's going to be worth it.' E

Core has found a way to create transparencies on the Saturn, using it impressively in river sections




The levels vary from woodlands, mountains and icy slopes to dark caverns and huge temples. The level of detail is impressively high



There's a far greater variety of enemies in *Ninja* than in *Tomb Raider* and each has its own variety of attacks and individual AI routines



Photography: Michael Donald

Joby Wood, the project's chief designer, claims the team have closely studied TV shows such as 'Monkey' to get a feel for the *Ninja* world



Even those with experience of the latest PC flight simulations will be impressed by what Innerloop has achieved. Beautiful undulating landscapes stretch into the distance, creating previously unseen levels of realism. Henning Rokling (second from left in photo, below)







InnerLoop

The endless pursuit of fast 3D graphics on the PC is a quest that spans the videogaming world. Edge jets to Norway to connect with a team of developers on the verge of a realtime breakthrough







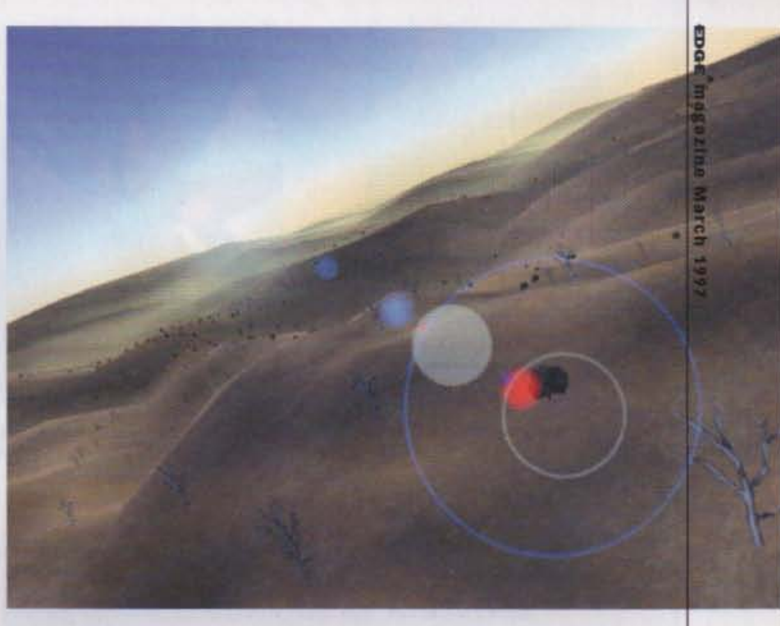




Currently, only the flight simulation (left) is destined to be a marketable title but the snowboarding and buggy demos (top left, above) look impressive, too



At higher altitudes it's actually possible to see the curvature of the earth. Terrain detail is assigned according to realistic geological data – trees only grow in grassy fields and below a certain altitude, for example



The PC realtime graphics field is a unique one in that is sees new developments occur with alarming regularity, the state of the art seemingly being reset approximately every six months. But despite the undeniable achievements of developers such as id, Epic Megagames and 3D Realms, not all the breakthroughs are being made in the United States. **Edge** recently flew to Oslo, Norway, to get the first look at a new engine whose creators claim – just as all creators of new 3D engines do – to be better than everything than has gone before it. There is no game to speak of, except the gaming concepts employed to show off the engine. Instead, **Edge** has travelled almost 1,000 miles to meet a team of ex-hackers and demo coders to get a glimpse of the future of realtime PC 3D. And catch a bit of snowboarding too, of course.





The sense of scale created by the buggy demo is truly breathtaking (top). Distant hills are clearly visible and aren't just included for effect

'It's not actually millions of polygons per frame, but it amounts to the same level of detail'

Henning Rokling, Innerloop

At Innerloop's offices in the snowy core of the city, there's a sense of technological oneupmanship that what they have achieved will make waves in the PC development community. And it appears that such confidence won't go unfounded. Rather unenticingly known as Iterated Functions Systems (IFS) the technology relies upon a relatively new form of mathematics that has only recently broken out of the realms of theory into practical application. Basically, it renders a polygon landscape as far as the eye can see and seemingly with no visible performance hit no matter how much detail it throws at the screen – even when what is being viewed effectively represents millions of polygons. Team leader **Henning Rokling** explains: 'It's not actually millions of polygons per frame but it amounts to the same level of detail as if you had used millions of polygons per frame. Usually you have all sorts of "pasting in" in the distance, but that's not very effective and we don't do it. We have fogging just for effect, because that's what terrain actually looks like.'

What impresses most about IFS is the way the engine draws the landscape far into the distance. **Edge** saw it running on a fairly lowly P120 in a defined SVGA mode greater than 320x240 and yet it managed to sustain a frame rate of 30fps with a breathtaking depth of vision. Naturally Innerloop is reticent to discuss the exact workings of its engine but the key to its performance is a set of algorithms that effectively mean that every coordinate of the huge landscape is precalculated and can be accessed immediately. The system automatically combines and connects faces and vertices while supporting a huge terrain and multiple effects. And the results are are plain to see: landscapes that stretch for miles and which unravel seamlessly with no build-up and use of hidden fogging.

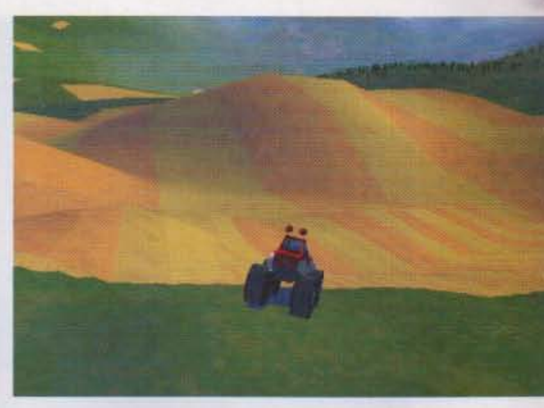
Even more surprising is the fact that Innerloop's huge textured world – currently around 2600Km across – fits onto a single floppy disc. Everything is designed to reveal more detail the closer it appears to the camera. Planes appear on the horizon as a few pixels but are formed from 700 polygons when up close (they even cast proper undulating shadows on the landscape, as do clouds, due to the engine's ability to have all the terrain information instantly to hand). Thousands of trees are scattered across the hills, each composed of numerous polygons and the ground textures do not even smear or distort when viewed up close. Conversely, the player can fly away from the ground and, after shooting through realistic 3D clouds, is then able to make out a realistic and geographically accurate outline of the country below.

'The main difference is the way that the data is stored,' continues Rokling. 'It isn't saved as polygons or surfaces in a normal 3D mesh but as parameters and textures in a kind of mathematical function. We have random access to every single point on the map and we can zoom in on a map to a single centimetre accuracy. Also, you can travel several thousand kilometres in one direction and then return to the same place, and when you get back it will be exactly the same – that is to say, if you've blown up anything it will remain blown up.'

To showcase the technology, Innerloop is currently working on a flight ▶







All objects within the engine are represented by three different models, each composed of different numbers of polygons which switch depending on distance from the game camera. Highly detailed models (such as this plane, centre) are made up of around 600-700 polygons while others use far less

The low-res VGA mode Edge is shown does not look substantially different to the hi-res versions

simulation game that will be ready towards the end of the year – but its potential for all manner of 3D games is enormous. The key to this diversity are some proprietory world-building tools that allow the construction of authentic and artificial landscapes with ease. **Edge** is shown how it is possible to edit the landscape with the custom world builder, adjusting the height of the mountains and generally manipulating an impressive 3D world in realtime, but the team is keen to keep the nuts-and-bolts of the tools a secret. 'Basically, anyone who makes a 3D engine would want to make it as simple as possible, and this one is really simple,' says Rokling. But all the complexity lies in creating the tools and the database so that 90% of its ingenuity is in finding the data and reading it.'

Despite running astonishingly well on a low-end Pentium, Innerloop's technology will also benefit from an accelerator card which will simply allow for the drawing of more polygons to the screen at greater resolutions. 'If you have a P200 you can boost the detail and have exceedingly good definition and shading,' adds Rokling, 'whereas if you have a slower computer you can reduce the detail, without affecting the gameplay, merely the appearance.' However, refreshingly for a state-of-the-art development, the low-res VGA graphics mode **Edge** is shown does not look substantially different from anything that has gone before. 'Most games in low-res look really crap,' concedes Rokling. 'This, however, actually looks good. It's running fast, it's got lots of good colours, everything looks very smooth and yet it's in low-res. It's extremely hard to tell from looking at the terrain because you never get the same pixel twice.'

The issue of terrain detail does come with limitations, though, and is obviously dependent upon RAM. To get around this, Innerloop determines which parts of the landscape to spend the RAM on. For example, if San Francisco's bay area was modelled it's highly likely that every player would want to fly over or under the Golden Gate bridge, so the team will devote more space and time to making this more realistic. Where the technology will really come into its own is in joining different types of terrain – such as the meeting of a lake, mountains and perhaps a desert – without sudden unconvincing changes.

But this is all well and good for the PC. What about consoles? Surely this technology could also be applied to run on machines such as the PlayStation? 'We talked about this and it would be possible,' reckons Rokling, 'but we would have to lose a couple of pixel features, and we would have to reduce the size or the number of textures. If we actually made a landscape without any features – that is, no airports, snow, specific coastal outlines, no anything – it would take 200K, which still gives about the same quality when it comes to the texture of the ground.'

The potential for Innerloop's technology to be licensed must be an enticing one to other developers. After all, progress in the development of external landscape engines has been slower than those limited to confined environments – mainly because technology has always been the limiting factor. Now, a game like the 16bit **Mike Singleton** classic *Midwinter* could actually be constructed in a believable world. *Command and Conquer*-type games could exist entirely in 3D and skiing games could exist in a landscape made up of 500 different slopes.

'Ultimately what we've created would suit a driving game, an off-road game or even a skiing game or a bike game,' concludes Rokling, 'but really you can create any kind of landscape. There is no limitation.'









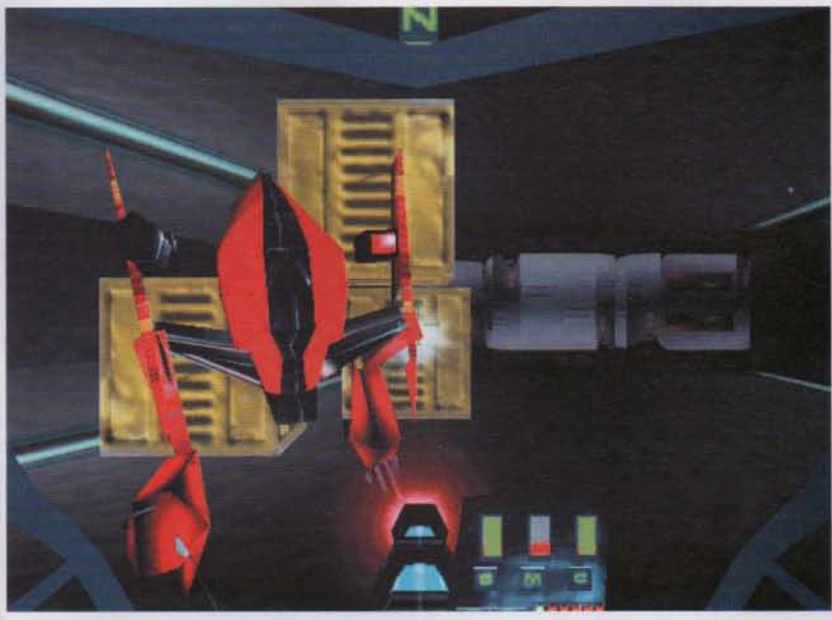
The small Innerloop team pose in the crisp Oslo winter sun (top). Unlike 3D engines used in *Commanche* and *Terranova*, Innerloop's IFS renderer has six degrees of freedom allowing unlimited viewpoints. It is also a stateless renderer meaning that no data is streamed into the engine on the fly (like *Need For Speed* for example) – instead, by using realtime decompression for every single frame, all camera parameters can be changed from frame to frame and all points of the huge landscapes are instantly accessible. Plus, it all runs at 30fps...

Terracide

UK codeshop Simis is harnessing the PC's new-found power to create the logical extension of *Descent* in *Terracide*, a game which promises to bring never-before-seen visuals to the format







At first glance, *Terracide* bears a striking resemblance to *Descent*, but myriad touches make it stand apart in terms of visual quality, both in static shots (these are all from the 3Dfx version, but the PowerVR and Rendition versions should be identical) and when running at full whack



***Terracide* benefits greatly from the vastly improved textures available with 3D cards**

As 3D accelerators begin to get a foothold in the PC market, Simis, like many other developers, is determined to establish itself in the brave new world of alpha blending, bi-linear filtering and polygon processing that it believes will finally afford the PC its due as a cutting-edge games format.

At first glance, its first effort, *Terracide*, resembles Interplay's classic 3D shoot 'em up, *Descent*. The gameplay takes place in a maze of tunnels and corridors, and follows the familiar keys-and-kills formula. Variety comes in the shape of huge, cavernous arenas, underwater sections and Tie-fighter-style space dogfights that link the 20 interior levels. But project leader **James Brooksey** is keen to emphasise that *Terracide* is not *Descent 3*: 'This game is really not the





The claustrophobia of the corridor sections is punctuated neatly by Tie-fighter-style space combat sections that should give *Terracide* a seamless continuity between its levels and afford an hugely impressive sense of scale



Format:	PC
Publisher:	Eidos
Developer:	Simis
Release:	March
Origin:	UK





Developer Simis has opted to support Direct3D as opposed to individual cards. While this may sound like a compromise (writing to software instead of directly to the hardware), the performance hit is minimal and there are surprisingly few effects available on cards that Direct3D cannot support

same thing at all. *Descent* has all these little robots hovering about, but *Terracide* is about huge, tough robots that follow you around, head you off and gang up on you. And we have walkers as well, that stomp around the floor instead of just floating there. I've seen *Descent 2* beefed up with the 3Dfx card, and it's nothing special, not like *Terracide*.'

Descent 2 was, of course, merely 'beefed up', while *Terracide* is the real thing, conceived from day one to be one of the first 3D-accelerated titles, and if you could see it running, you'd know why. Those who have a dedicate 3D card will witness 16bit colour, reflective textures on the robots and bi-linear filtering, as well as a screen update of 25-30fps, all achieved via Direct3D. No card-specific drivers have been written for *Terracide*.

Fortunately, the general opinion now seems to be that Microsoft has got things fundamentally right, and that fears of D3D being 'the lowest common denominator' have proved unfounded.

'The problem with Direct 3D is that it's not easy to use,' explains Brooksey. 'The routines, manuals and support from Microsoft have been somewhat confusing. It takes a long time to get used to it, but once you've cracked D3D, virtually all of the effects you want are available. I think the only exceptions that we've found are realtime shadows on the PowerVR card and the texture doubling on 3Dfx. Everything else is available, and it's all in the game.'

The inclusion of a death match mode featuring invisibility weapons (where opponents can only see the player's tell-tale vapour-trails) should also secure *Terracide* long-term appeal, quite apart from the obvious challenges associated with 20 maze-like levels. Hopefully, the welcome and timely emphasis on graphics won't be at the expense of gameplay. If Simis gets it right, *Terracide* could be the much-needed showcase title 3D card manufacturers desperately need to get PC owners to put their hands in their pockets for yet another upgrade. **E**



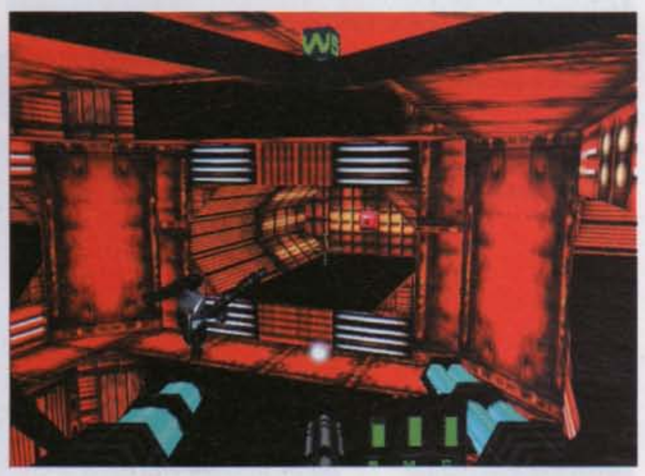


Though *Terracide* treads familiar ground, its visuals give it an immediate edge

'I've seen *Descent 2* beefed up with the 3Dfx card, and it's nothing special, not like *Terracide*'







Refreshingly, despite the game's 16bit colour, metallic textures, coloured lighting and smooth update of 25-30fps, Simis is confident that *Terracide* will be much more than a special effects showcase

Kick Off '97

As the PC sports game scene continues its rapid expansion, a legendary title is being exhumed that its creator hopes will conquer the likes of EA's popular *FIFA* series

Soccer games have found the transition from 16 to 32bit to be an uneasy one. Gremlin started the ball rolling with *Actua Soccer*, employing motion capture and hybrid sprite/polygon technology, but many felt that the instant gratification of titles such as *Sensible Soccer* on the Amiga and Konami's SNES classic, *ISS*, was sadly lacking. Two years on sees emphasis very much on pace and simplicity once again.

Kick Off '97 is the latest in a line of soccer sims that began on the ST and Amiga in 1988, and has since appeared on the Mega Drive, SNES, PC and soon, PlayStation. *Kick Off 3* never quite fulfilled its potential, but Steve Screech of development house Anco is confident that *Kick Off '97* will fare better.

'We tried to publish *Kick Off 3* ourselves, and we simply didn't have the resources to promote the game,' he reveals. 'Now that Maxis has stepped in, we hope to get the publicity that we deserve. The unique thing about '*97* is that you can actually play it straight away, as opposed to most of the 3D soccer titles around at the moment. We're going back to basics.'

The complexities of controlling a player

'We tried to publish *Kick Off 3* ourselves, and we simply didn't have the resources to promote the game'

in a 3D stadium have, according to Screech, taken the fun out of the game. Replacing the now traditional three- or four-button combinations is a simple two-button set up, with different moves and kicks available depending on the position of the player on the pitch. This should give the game the addictive hook needed to



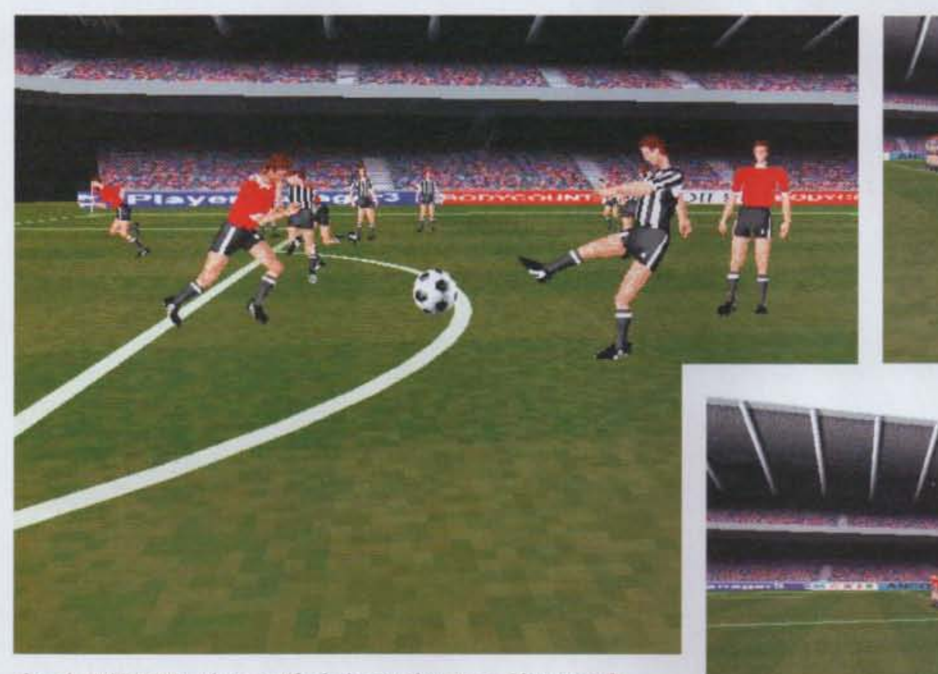
The detail on these player models is considerably greater than that displayed in rivals *Actua Soccer* and the poor *FIFA '97*. Motion-capture data from Wright and Seaman will add flair



The PC has hardly been fertile ground for football simulations, but if anyone can bring an accomplished version to the platform, it's veteran developer Steve Screech. He might want to keep an eye out for *Sensi Soccer 2000*, though



Format:	PC/PlayStation
Publisher:	Maxis
Developer:	Anco
Release:	TBA
Origin:	UK



Though *KO'97*'s 3D environment looks impressive, Konami has recently proved (with N64 *Perfect Striker*) that wild camera movement isn't necessary

The usual array of pre-match routines, such as line-ups, will appear in the game. Detail looks rather spartan at this stage, however

recreate the pass/shoot pace of the old 2D games. Controls aren't the only factor. The 3D engine will have to be quicker than it was in the doomed *Kick Off 3*.

'We've used motion-capture techniques for the players, using Ian Wright and David Seaman for the data,' Screech explains. 'We haven't let it compromise the speed. The engine has evolved over a period of years since the original 3D build of *Kick Off 3* and we've learnt a lot on the way, and now we have a hi-res engine that consistently runs at 25fps on a 100Mhz PC. There's a low-res mode, but it's not the default. God knows how fast it would be then,' he muses.

And if there are still those who hanker after the good old days of tiny *Sensi* sprites, *Kick Off '97* provides in the from of an overhead camera. With Maxis on its side, the game should at least register in the FIFA-mad consciousness of PC soccer fans, but it's a notoriously fickle market. The 'back to basics' approach will doubtless appeal to those who fondly remember the likes of *Kick Off* on the Amiga, but it remains to be seen how it will fare with a market more used to big licenses and simulations than knockabout action. **E**

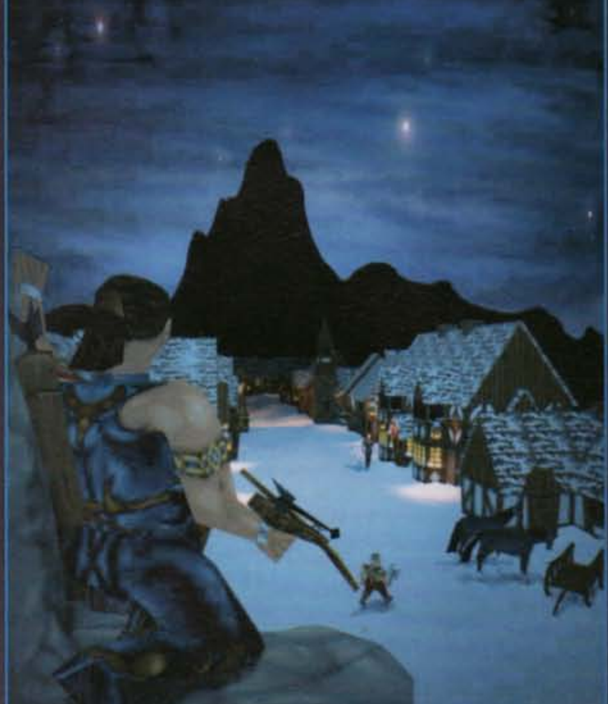


A Highbury-style videoscreen (above). The simple control method should allow for some Arsenal-esque play, too









These complex scenes (above, left) are taken directly from the game but have been rendered in *3D Studio* with the same number of polygons

Power Crystal

As new technology brings greater freedom, an ambitious 3D adventure is set to show the videogaming world just what M2 can do...

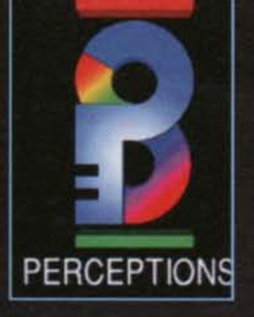
Hull is not the sort of place where most warm-blooded types would think of setting up a development house. It's a fishing town and ferry port, and it constantly seems to be cold, wet and extraordinarily windy. None of which appears to bother **Andrew Whittaker**, the 29-year-old co-founder and managing director of Perceptions. 'I really love our office,' he explains earnestly, 'it's one of the best working environments I've ever experienced. It's great coming to work every day and being so close to scenic country and the river.'

In some ways **Edge** can understand his enthusiasm. Hull may seem like a strange place to have an office, but on visiting the modern and spacious Perceptions HQ, it's clear why the place is liked so much. The sea is just yards away and the magnificent Humber Bridge is visible from the windows – a sight guaranteed to relax even the most frustrated of programmers.

Perceptions was founded in 1995 by Andrew Whittaker, **Andrew Noble**, **Dave Lago** and **Tan Cheng Im**. As Whittaker explains, 'Each of us had experience in the computer industry and we all decided we would like to get more involved with designing gameplay-orientated products.' During the months that followed the start-up, Perceptions began looking to recruit videogame talent. The group had one imperative. 'It was a criteria that every member we employed was to have a



Every object in *Power Crystal* will feature Gouraud shading, and will be affected by sunlight and shadows – a breeze for the M2





Perceptions' Andrew Whittaker began tinkering with a ZX81 in 1981 before moving into game programming

significant title under their belt,' explains Whittaker. This is perhaps slightly ironic considering the origins of two Perceptions founders, Dave Lago and Tan Cheng Im. Lago, now financial director and 3D programmer, previously worked on computer projects at Barclays Bank, while Cheng Im is a professor and, according to Whittaker, a leading authority in virtual reality. She still lectures around the world in universities such as Singapore and works with the firm on a mostly consultancy basis.

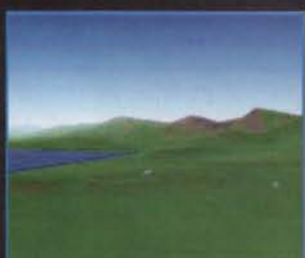
Eventually, the group took on six staff from previous ventures and, in early 1996, placed an ad in the recruitment section of **Edge**. After a healthy response, two more people were hired.

The *Power Crystal* project began when 3DO approached Perceptions and asked if the team would like to get involved with M2. Whittaker already had the actual game concept in mind, but was waiting for the right opportunity to create it. As he explains, '*Power Crystal* is a game I've always wanted to write. I developed an interest in large landscape strategy games after working with **Mike Singleton** and have had the idea for this huge RPG for a long time. I had to wait for a machine that could achieve my expectations. We wanted to add continual excitement for the player – not just a landscape romp – and it takes a lot of processing power to keep all the characters, buildings, puzzles and objects around in the world. With the M2, we've realised that aim to the extent where there is literally something around every corner.'

Perceptions was apparently an early choice as an M2 developer because of the team's track record and because Whittaker's Jaguar game, *Alien vs Predator*, was one of 3DO's favourite titles. According to Whittaker, his team was delighted at the prospect of working with the Matsushita's M2 format: 'Being approached by 3DO was an offer of which we are very proud. It was great to be first on the block with such stunning new hardware.'







The 30,000 square kilometres of game area have been put together using single tiles. A contour map then converts data into tables



The Perceptions team braves Hull's less-than-glorious climes



Some of *Power Crystal*'s enemies are most definitely not human...

Format:	M2
Publisher:	TBA
Developer:	Perceptions
Release:	December
Origin:	UK

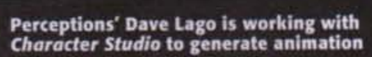
At the moment the company has an M2 card plugged into the back of an Apple Macintosh, along with several Pentium 166Mhz machines networked around the office. The initial learning curve of the M2 is apparently quite long and the team says they spent around six months perfecting their skills. Once mastered, however, Whittaker insists that it's a programmer's dream. The majority of *Power Crystal* is being created in C using M2's own compiler, while the polygon graphics are created using *3D Studio* and *3D Studio Max*. The only part of the game written in assembler is a small section of the 3D engine, though even that is mostly in C.

Power Crystal itself looks set to be a unique RPG title. The whole thing takes place in a full 3D environment, in realtime, and the player is able to walk around and interact with other characters – the idea being to simulate a real, living world. Plus, as Whittaker explains, '*Power Crystal* has revolutionary elements to it such as character progression. Every player starts his or her life in an identical manner, with the same status. The character evolves and grows by the way that they live their life. If the player fights a lot they get better at it, as in real life, or if they trade a lot, the player will become a skilled trader.' All of the character traits, then, are carefully balanced and modified by the AI system in accordance with the player's actions and ▶

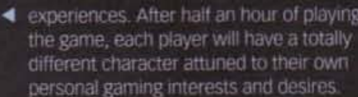
'We were proud to be approached to work on M2. It's great to be the first with such stunning hardware'

Andrew Whittaker, Perceptions





Perceptions' Dave Lago is working with *Character Studio* to generate animation



experiences. After half an hour of playing the game, each player will have a totally different character attuned to their own personal gaming interests and desires.

The script for the game was written by Whittaker and Lago, and now reads more like a novel. The basic plotline concerns seven pieces of crystal which hold the balance of power within the world of Kelemar. The player has to recover the pieces to gain magic power to defeat an invading army.

It's more complicated than it sounds, though, and in order to realise the cinematic scope of the plot, the entire game is being put together in a true movie-like style. Every eventuality is being storyboarded with dozens of books full of story information taking up space in the Perceptions office. The walls are also covered in artwork depicting all the characters set to appear in the game. There's even a detailed map of *Power Crystal*'s world, Kelemar, in a back room. The team claims that the game's texture-mapped landscape covers a massive 30,000 square kilometres. 'A landscape of this size is a tall order for any machine,' admits Whittaker. 'The M2, however, makes it that much easier...'

As for the world's inhabitants, there are due to be around 10,000 creatures roaming around the landscape. These are divided into 35 different types including orcs, dwarfs, giants, dragons and, of course, humans. And because the game is in realtime the player can actually stand still in one of the towns and watch everyone going about their business. When the player does decide to move, the entire true 3D realm is explorable – it's possible to walk into any building, get into a boat and cross the sea, or even get on the back of a horse and go for a ride. Even this aspect is true to life: some horses are wild and run



All of the game's graphics are 3D polygons, apart from lamp posts, bushes and birds, which are implemented in the form of sprites

The game's landscape covers a massive 30,000 square kilometres – 'a tall order,' admits Whittaker

Team pedigree

Perceptions' MD, Andrew Whittaker, first taught himself programming on the ZX81 way back in '81. In 1984 he left school and joined the Graftgold team where, along with Andrew Braybrook and Steve Turner, he contributed to a host of chart-topping 8bit products.

Whittaker then went on to work with Alien artist **HR Giger** on *Darkseed*, a game that became a major success in the States. He has also worked with Mike Singleton on *Ashes of Empire* and, prior to forming Perceptions, wrote *Alien vs Predator* for the Jaguar, a game which went on to sell over 345,000 copies.

Other titles the rest of the team have worked on include *Matchday* in conjunction with **Jon Ritman**, *Defcon 5*, *Pitfall 2*, *Bubsy* and *Mortal Coil*. In total, over 30 titles have been written by individuals before joining the company.







The player will be able to enter every building in the game – some are considerably more grand than others







Combat (top) will take place in realtime. One of the game's biggest adversaries is a red dragon (above)

away, while others are tame and calm. The game also allows teleportation from one place to another, so the player needn't plod 20,000km to reach a new area.

Most impressive is the intricate detail and realism which seems to be packed into every aspect of *Power Crystal*. As the game is in realtime, it includes a speeded-up circle of night and day so that, after one hour of daylight play, the world turns dark, and vice versa. Weather effects such as rain, snow and fog are also included. Even climatic conditions have been synthesised: if players climb a tall mountain they will be met with dense fog at the summit, just as in real life.

The city **Edge** saw was filled with houses, both large and small, each available to be entered by the player. Once inside, the game camera adopts a fixed point in the top corner of the room, and the player is free to interact with its inhabitants.

Importantly, though, the wealth of peripheral detail is not a screen to hide mediocre gameplay. 'There's so much to do in *Power Crystal* – fighting, trading, exploring, interacting, strategising,' claims Whittaker. 'Basically, you live your life in a whole 3D environment, even the set-piece quests can be attempted in any order and by a variety of methods. A key for us was to

Walking around a town environment, it's difficult not to be impressed with the fluidity

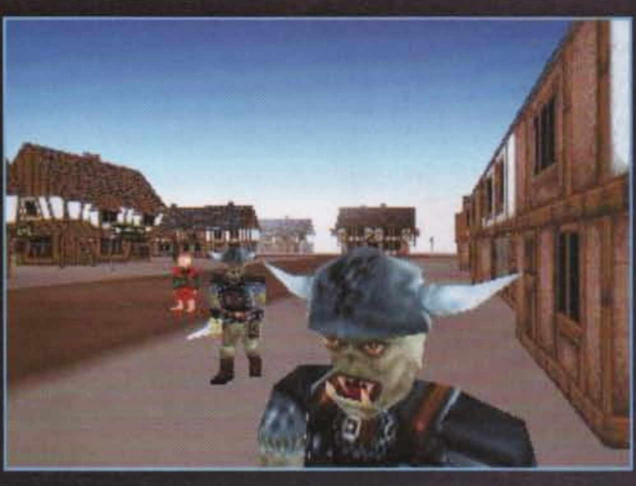
make the whole gameplay experience non-linear, so you really feel that you are there and the master of your own destiny. If the player wants to join forces with a bad guy then the player can do that, or if he wants to go and help out a local duke with his problems then he can do that too.'

Walking around a town environment, it's difficult not to be impressed by the speed and fluidity with which the realtime environment is generated, with no noticeable jitter whatsoever. When **Edge** visited Perceptions, *Power Crystal* was running at an impressive 60fps – and the current development kit only has one PowerPC chip. The final version will use two, and Perceptions has been told that it will then run at least twice as fast. There may well be slowdown when its full quota of graphics is up and running, but even then, the frame rate should still achieve a higher count than other 32- or 64bit systems can presently manage.

If all goes to plan, *Power Crystal* could pan out to be an astounding showcase for the M2. The sheer detail on display in the game is staggering, and, coupled with the rich, true 3D graphics, may well be enough to tempt RPG fans away from the clutches of Sony and Nintendo. Every new piece of hardware needs a killer app, and with this and Warp's *D2* on the horizon, the bigwigs at Matsushita must be rubbing their hands together with glee.

Now that the hardware is becoming available to make complex, realtime 3D environments possible, the potential for large-scale RPGs which generate whole new senses of 'being there' is growing, and Perceptions' first game could lead the way.

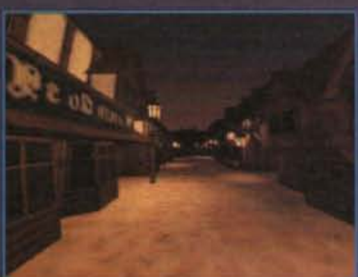
Power Crystal is due to be finished for Christmas, yet no publisher has so far been set. On the evidence seen here, Whittaker should perhaps expect to see a bundle of offers landing on his desk over the coming months...



The game will feature 35 different types of character. Animation is not yet complete, but Perceptions promises fluidity and realism



Despite some rough character designs, Perceptions has obviously taken influences from many sources, such as *Legend of Zelda 64*





In development

Apart from its flagship title, *Power Crystal*, Perceptions has three other games under development for release on many formats.

Jester (working title) is a platform adventure game in a similar mould to Sony's *Crash Bandicoot*, except with more freedom to move around a 3D area, as in *Tomb Raider*. The intro sequence **Edge** saw running on PC was very impressive, showing Jester as a large, colourful character legging it around a full 3D castle environment with excellent shadow and lighting effects.

Also in development is an as-yet-unnamed 3D puzzle game and a 3D tank shooter called *Flagfight* (again, working title) which uses essentially the same engine as *Power Crystal*.

Dracula X Symphony of the Night

Konami is readying itself for a full-on 32bit assault with a sequel to one the games that made its name. Ex-SNES owners will doubtless look upon its PlayStation sequel to *Castlevania IV* with slackened jaws...





A prerendered intro (left) sets the scene for what's set to be one of the PlayStation's most atmospheric games to date. Though the game's presentation is distinctly 2D, a rich colour palette serves to give it graphical depth (right)







***Castlevania IV*'s final showdown (middle) is included in the intro. Another boss (above)**

Many hardcore gamers would pick *Castlevania* as their most treasured of Konami's series of action games. Given the game's popularity on the NES and Game Boy, and not forgetting the memorable *Castlevania IV* on the SNES, it is indeed surprising that it has taken this long for it to arrive on the PlayStation. One reason cited internally was that the company's chairman doesn't hold the image of the series in high regard, preferring to fashion a friendly public face out of cute and colourful characters from games such as such as *Goemon*, *Parodius* and *Twin Bee*. However, a release date has been set for the Japanese version of PlayStation *Castlevania*, and a version will be released in the west nearer the Summer.

In terms of game structure, *Dracula X: Symphony of the Night* has more in common with the last instalment in the series, *Dracula X: Devil's Castle*, on the PC Engine (**E**4). Opening up the linear









Memory card save points are activated by finding coffins (above). Enemies meet their demise in a vibrant fashion (right). Some special attacks are huge in both visual and damage potency (top row)





Format:	PlayStation
Publisher:	Konami
Developer:	In-house
Release:	March (Japan)
Origin:	Japan











Turning into a bat (top left) and yellow vapour (top right) opens up previously inaccessible sections





***Dracula X* could be fairly likened to classic SNES title *Super Metroid* in that some of its areas are inaccessible until a certain object or power is discovered by the player**



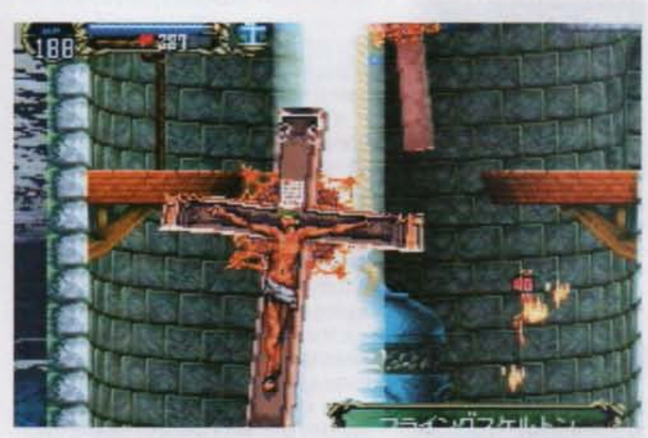
***Dracula X*'s map is comprehensive (top). Players face a menu of items, etc (above)**

networks of the SNES title and introducing a level of gameplay depth normally associated with Japanese role players, PlayStation *Dracula* immerses the player in a richer, more expansive environment and includes RPG elements such as interaction with other characters and even making use of an enormous array of weapons and magic. For a title clinging on to its 2D roots, this a logical direction for Konami.

The game's playable introduction sees a welcome resurrection of the final section of *Castlevania IV* on the SNES. Here the player defeats Dracula, and after a new and rather spectacular final boss sequence, the game starts afresh with a whole new quest. In some respects 32bit *Castlevania* owes more to the sprawling nature of the PC Engine version, though – there's an enormous and intricate layout of the castle that self-maps as you progress through it, and wandering through labyrinthine networks of tunnels and corridors reveals a diversity of gameplay. While the whip and chains used to swing across gaps in *Castlevania IV* have sadly been dropped (or at least weren't included in the version **Edge** played), the ability to transform into a bat permits access to previously inaccessible areas. Also, the player can even transform himself into a transparent, yellowish vapour allowing obstacles such as iron gratings to be passed through with ease.

Visually, at least, this 32bit incarnation will perhaps initially leave expectant players a little underwhelmed. Most noticeably there's an almost 16bit look and feel to the backgrounds and sprites, as full 3D objects are spurned in favour of fixed layers of conventional parallax. Fortunately there are subtle technical accomplishments such as sprite rotation and some clever shadowing, but for many, it is the suite of weaponry and magic effects that will command most attention – some having devastating effect, filling the screen with translucent lights and spinning holy crosses.

While clearly lacking some of the visuals that 32bit console owners have become accustomed to, *Dracula X*'s intricate 2D graphics, wonderful CD music and appropriately huge quest should be just enough to keep the *Castlevania* bloodline intact.



The game includes some imagery that may cause offense to western audiences. Japanese designers have no qualms about such content

Runabout

Obviously tired of creating isometric-3D RPGs such as *Dark Savior,* Climax has turned to the driving game, adding mayhem, demolition and full-scale destruction for good measure







Most obstacles in *Runabout* can be smashed through or run over. Unfortunately, this tends to attract the attention of the local police. However, they can be dealt with accordingly (bottom, far right). The player's vehicle often ends up dented beyond recognition (top right)





Players can customise their vehicles (top) and choose from three different maps (above)

Format:	PlayStation
Publisher:	Yanoman
Developer:	Climax
Release:	TBA
Origin:	Japan

For a long time, developers have been trying to find alternatives to the *Daytona*-style racing game in an admirable attempt to avoid formula fatigue. Crash-and-smash titles like *Destruction Derby* and *Twisted Metal* have proved popular, and Konami recently added a new twist – the user definable circuit – in *GTI Club Côte D'Azure*. Now acclaimed Japanese RPG designer Climax has combined both variants in its first ever racing game: the promisingly manic-looking *Runabout*.

In many ways, *Runabout* isn't quite as innovative as it might first appear: Probe's *Die Hard Trilogy* treads much the same ground in its driving section. Both games require the player to reach certain locations within allotted times and both take place in urban locations with no fixed circuits. In each title, then, racing is against the clock rather than other drivers, and finding the best route to the target by avoiding dead ends, traffic jams, etc, forms a significant part of the action.

As a complete title, though, *Runabout* naturally gets more space to explore this intriguing new genre. For a start, the game offers three tracks as opposed to *Die Hard Trilogy*'s single Manhattan offering. The first stage, named 'Downtown', takes place in the Chinese sector of Los Angeles, the second in the Shonan area of *Tokyo* (a seaside resort well-known for its traffic jams) and the third area, currently still being designed, is modelled around Paris by night.

Inevitably, each of these courses places different demands on the driver. Paris is littered with tiny, difficult-to-navigate streets (and it's possible to take a few short cuts through the city's Metro system), while the Tokyo Shonan area is as famous for its traffic congestion as its seaside setting – an element successfully captured in the game. To keep players on their toes, traffic jams develop in different areas of the map each time the game is played, so potential drivers have to be constantly aware of alternative routes. Apparently, though, if all else fails, it's possible to drive along the beach.

But the amusing part is, it's not always necessary to avoid other cars. The player can choose from a list of 22 vehicles – including sports cars, family saloons,







From top: 'Down Town', 'Sea Side' and 'Metro City' are the game's three driving locales











Although smashing into things is fun, the player is racing against the clock and must reach the target point within a time limit. The map in the corner of the screen hints at possible routes to the finishing line



'Officer, the shop just leapt out in front of me'

trucks and even a scooter and a coach – and the larger ones can just smash their way through traffic. As with *Destruction Derby*, this proves amazingly entertaining. Crashes are complemented with a range of sickening smash noises, and the player's vehicle can come away with massive dents – a feature which adds greatly to the destructive satisfaction.

However, the coaches and trucks do not always provide the best options. Each vehicle handles differently, and the tactics available to the player vary depending on which is chosen. A rubbish truck, for example, is hardly the ideal vehicle for navigating the narrow lanes of gay Paris. In any case, wilfully smashing into obstacles like vehicles, pedestrians and buildings can attract the unwanted attentions of passing patrol cars whose drivers will take pot shots at the player.

Graphically, the game is shaping up well. The shabby, densely cluttered tenement buildings of Chinatown are well reproduced, with some great, detailed texture-mapping on the many Chinese-language signs and adverts. The second stage proves a stark contrast with suitably lush beaches and a glorious sunset skyline. Importantly, all the maps look exceptionally large, so there should be plenty of scope for exploration – it's even possible to drive into shopping malls and hotel foyers, something that will no doubt appeal to fans of 'The Italian Job'.

There do appear to be a few teething problems, though. Collision detection is weak at the moment, and some of the vehicle handling – especially on the scooter – is frustratingly tough and unrealistic, but these are sure to be sorted out prior to release.

If Climax can build on *Runabout*'s obvious early promise, the game could well set the pace for a fresh new breed of driving games.













The game offers a large range of different vehicles, each with its own set of pros and cons. The coach (above right) will drive through just about anything, but is hard to control, whereas the scooter (left) is less sturdy, but much easier to manoeuvre

The Dark Project

With every man and his dog seemingly having a *Quake* beater in development, Looking Glass' striking effort distinguishes itself from the pack with a heavy-on-the-strategy angle



It's fitting that Looking Glass, a development house situated near Harvard and the MIT, is dedicated to making games that require some genuine intellect as well as basic gameplaying skills. So it was somewhat surprising when the Massachussets-based group announced work on a first-person shooter apparently not too far removed from balls-out actioners such as *Quake*.

'We've got volumetric rendering, with ray-cast lighting like in *Quake*,' says project director **Greg LoPiccolo**. 'Lookswise we feel it's going to be very competitive.' Even more like *Quake*, this new game features polygonal enemies and a medieval setting, but according to LoPiccolo, that's where the comparison ends: 'From a gameplay mechanics standpoint, we're really excited about our concepts for advancing the state of the art, in terms of creating an immersive world where everything works.'

In terms of background, LoPiccolo reveals that, 'In essence you're a thief in this undefined medieval age, sort of medieval meets "Brazil" meets "City of Lost Children". There's some electricity, some magic, and some 19th century machinery kind of stuff.' As a thief in this world, the player needs to develop more than just a good aim. 'It's not like *Duke Nukem*,' LoPiccolo explains, 'where you have lots and lots of firepower. It's more





No support for the MMX instruction set has yet been included, but its growing popularity would seem to make it an essential element

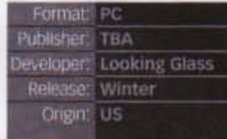




Stealth will be be an important skill in negotiating *The Dark Project*'s many levels

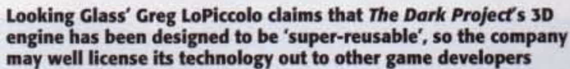


Environments made up of slanting architecture add to the game's otherworldly qualities. While the early version Edge saw lacked enemies, its construction gave it a flavour that will be at least a match for id's seminal *Quake*

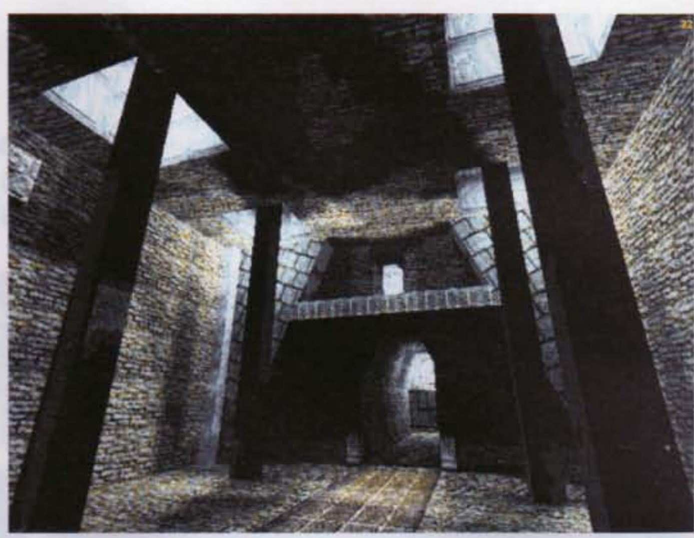


Format:	PC
Publisher:	TBA
Developer:	Looking Glass
Release:	Winter
Origin:	US





Looking Glass' Greg LoPiccolo claims that *The Dark Project*'s 3D engine has been designed to be 'super-reusable', so the company may well license its technology out to other game developers



like you're smart, and you get smarter through the course of the game.'

The player is armed with a sword, a knife, and a bow, and, while there are power-ups, players will need to continually improve their tactical skills to deal with situations. 'Much of the actual gameplay involves using shadows effectively,' reveals LoPiccolo. 'You're constantly sneaking around and making decisions: who to kill, who to sneak past, and who to trick.'

Ideally, the Looking Glass team wants a deep and complex world that is also fast-paced and exciting. 'Essentially we're building a type of simulator,' says LoPiccolo, 'where object interactions are correct and physics are tied in correctly, but not as weak as a *Daggerfall* thing, where there are zillions of NPCs in this large empty world. Also, our combat system enables you to do things other than just blast away at everything in sight.' One specific example is when a player draws back on a bow and the targeting camera zooms in. The longer the player draws back, the more accurate the shot. This enables concealed players to snipe enemies with amazing accuracy.

The Dark Project will be the first game to feature 'Act-React' technology, an intricate form of engineering that bestows real-world properties to game items. 'The goal is for everything to behave as it should,' explains lead designer **Jeff Yaus**. 'For example, things that should burn will burn, and then it's up to the player to decide to burn things, whether or not we've anticipated it. That's Act-React's real strength. We're using it for numerous game properties, including sound in the same sort of way.'

Most of the roughly 30 types of enemy will be bipedal creatures, and LoPiccolo suggests they'll get stronger and smarter as the game progresses. While hesitant to talk about them at this early stage, he will explain the motion-capture editing process: 'We'll be able to do some very unique organic motion. Not just straight bipedal stuff, but some scary, creepy stuff with aquatic creatures and some other multipedal enemies.'

At this early stage, LoPiccolo guesses a P90 will be the minimum system, and the game will support some 3D accelerator cards, although specific chipsets still have to be chosen.

While the development focuses on creating a fantastic oneplayer game, multiplayer modes will be an option. A level editor may also ship with the title.

'Like anybody, we have to go with our strengths,' LoPiccolo notes. 'Clearly if you want a technologically optimised, low-brain shooter, talk to id, because they're better at that than anyone.' Smiling, he adds: 'But we think we can do expressive worlds better, and we'll still have a fairly high adrenaline factor.' E





Though the development is focusing on the oneplayer game, Looking Glass is looking into the possibilities of various multiplayer modes

10th Planet

Dean Devlin, of 'Independence Day' fame, is lending his talents to a space combat sim that could meld Hollywood storytelling qualities with a high-end 3D environment to die for







Bethesda's Nesmith is particularly proud of the company's X-Engine: 'There are many different ways we can use it. We built [RPG] *Daggerfall* around it, we're using it in an experimental car racing game, *X-Car* – we're looking for all kinds of ways to exploit the technology...'

The thing that Bethesda has right now that's definitely our best asset is our X-Engine technology,' claims **Bruce Nesmith**, *10th Planet*'s producer. X-Engine is a realtime rendering system of such considerable flexibility that it can construct virtually any sort of environment, for any purpose, and it's being put to use in a title that's part space combat, part wargame.

Perhaps a more important component than X-Engine, though, is the way *10th Planet* is being developed – as a co-venture of Bethesda Softworks and the Hollywood production company Centropolis, probably best known for last year's blockbuster, 'Independence Day'.

'Since I've been here – about a year and a half – Centropolis has been linked with *10th Planet*,' Nesmith explains. 'The producer there, Dean Devlin, has been excited for a long time about getting his hands dirty in our environment and doing a computer game.'

Centropolis is taking duty of developing the story, characters, and the handling of ship and alien design, an arrangement that has so far been a productive one. 'Largely the folks at Centropolis, and in particular Devlin, have the understanding that the idea isn't to take a film and put it on the PC, the idea is to make a PC game,' says Nesmith.

10th Planet sees the player as a privateer who helps fend off attacking aliens. The game's time element means that its planets all follow their respective orbits, so its overall strategic environment changes as planets move positions.

The relationship history between Hollywood and videogames is strewn with the corpses of failed dalliances, but *10th Planet* appears to have the elements in place to avoid such disasters.



Format:	PC
Publisher:	Bethesda
Developer:	In-house
Release:	November
Origin:	US





'There's a high probability that we can have fractal landscapes in the game,' says Nesmith. 'This means we can have players fly over the surface of the moon, or any other planet, and we won't have to calculate the data beforehand'

Myth

More than *Command & Conquer* or *Warcraft II* in 3D, Bungie's latest game pushes the realtime wargame genre into startling new directions – extreme bloodletting being just one...







The game's use of a full 3D environment hasn't been without problems. 'With, say, arrows in a 2D world,' explains Jones, 'all you have to do is point them and fire. But in a 3D world, we have to make the arrows arc in flight – actually, the archers have to solve a fourth degree polynomial...'



Format:	Mac, PC
Publisher:	Bungie
Developer:	Bungie
Release:	Autumn
Origin:	US

'We've been calling it a realtime, multimetric tactical game,' says **Doug Zartman**, Bungie's head of marketing, of *Myth*.

'That's at least enough words to make people think about what they're looking at,' agrees **Jason Jones**, co-founder of Bungie (publisher of seminal Mac *Doom* clone, *Marathon*) and its lead programmer and designer. 'The problem is that when you say "realtime strategy," people think of *Command & Conquer*. *Myth*'s going to be different from the typical, "Here's your town hall; build everything up around it; attack the enemy in waves." The emphasis is on tactics and combat. This is a game where you fight, period. You set up troops, take the high ground, meet the enemy halfway with guys to slow him down and hit him from the side. It's all about manoeuvres and formations and getting your guys to favourable terrain.'

While the oneplayer game follows an extended campaign, each individual level is a single battle. There are no resources, and no building of bases. Players receive an allotment of troops and fight it out with what they have. Reinforcements arrive after, or sometimes during, battle, and troops who survive gain experience.

This shift in emphasis leads to *Myth*'s other innovation, as Jones explains: 'Because we don't care about building buildings, the entire focus of our engine has been on visual realism – seeing every drop of blood that gets spilled on the battlefield.' *Myth* is the first realtime combat game played out entirely on a 3D battlefield. Every environment is completely texture- and shadow-mapped and unique in design, with hills, rivers, swamp, trees, and so on.

Myth's engine is extremely powerful, allowing two or three hundred troops on the field at once. 'If it can't,' Jones cracks, 'we're going to sit there and optimise the damn thing until we can, because that's the whole point.' Multiplayer options include LAN and Internet play, with games of King of the Hill, Capture the Flag, and even rugby played with severed heads.

With its 3D combat, large number of different units and multiplayer features, *Myth* may very well be the next step forward in 'multimetric tactical games' on the Macintosh and PC.







The game uses a player-controllable camera system somewhat akin to that of *Tomb Raider*

GO! GO! TROUBLEMAKERS

Once master of Sega hardware, Treasure is now concentrating its efforts on a special effects-packed N64 platformer which looks set to rewrite the rules of the genre







Though for the most part the game is presented in a 2D style, some stages use 3D effects, including forced-perspective rotating screens (above left). Marina's encounter with this lava monster (main) is reminiscent of a similarly styled section in SNES title *Contra III* – another title by the Treasure team





The game's special effects will appease fans of traditional Japanese action games

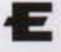
Following its sterling work on the Mega Drive (with *Gunstar Heroes* *Dynamite Heady*, etc) and Saturn (*Guardian Heroes*), small Japanese codeshop Treasure is making a welcome debut on the Nintendo 64 with an innovative action game for Enix.

In *Go! Go! Troublemakers* (or *Yuke! Yuke! Troublemakers* to give it its native Japanese name), the player will take control of a character called Marina, a robotic bodyguard who must explore a planet called Star Nendoro in order to rescue her mentor, Dr Campbell, who has been captured by the Nendoro people during a visit to their world.

This simplistic scenario manifests in game terms as a side-viewed action game which, upon initial inspection, doesn't exactly ooze 64bit qualities (indeed, many visitors to the Shoshinkai exhibition in November last year thought that Enix's rolling video was showing a new SNES title). Look closer, though, and it's possible to pick out all the hallmarks that have contributed to Treasure's reputation for quality: fantastic use of colour, great character design, inspired animation and a surfeit of jaw-dropping special effects.

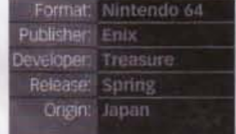
Treasure is attempting to introduce a new kind of playing style to the platform game scene in *Troublemakers*: instead of simply killing enemies, Marina will be able to pick them up and throw them at other enemies or, if the enemy is one of the Nendaro race, shake it to release an item, which might be a bomb, a bonus, or something that endows a special move. If the player chooses not to throw or shake the enemy, it can even be used as a shield against attacks.

Bizarre? Indeed. Possibly one of 1997's biggest thirdparty N64 games? Most definitely.





Treasure has sampled voices of famous Japanese actors and actresses to give *Go! Go! Troublemakers*' characters an extra degree of life



Format:	Nintendo 64
Publisher:	Enix
Developer:	Treasure
Release:	Spring
Origin:	Japan


Great
Videogame
Myths



Did Atari really bury millions of E.T. cartridges in the desert? Did Nolan Bushnell steal the idea for Pong from a rival company? Edge investigates the truth behind these, and the rest of videogame history's other most notorious myths, in an exclusive exposé…

The videogame industry, like any division of the entertainment industry as a whole, is peppered with myths, rumours, secrets, cover-ups and outright scandals. Many, of course, have their foundations in pure fiction or overexaggeration. Others, conversely, have truth – to varying degrees – as their basis.

Over the next nine pages, **Edge** examines the most popularly perpetuated videogame myths…



DID NOLAN BUSHNELL STEAL PONG?

Did a Magnavox prototype 'inspire' an Atari employee to invent *Pong*?



agnavox [an early manufacturer of home videogame consoles] demonstrated a working prototype of the Odyssey, the first home videogame system, to dealers around the US. When the system was shown in the San Francisco area, **Nolan Bushnell** saw it, copied it and turned it into *Pong*.

The Truth

Magnavox sent the Odyssey to several private showings before publicly unveiling it in New York. The first show was on May 3, 1972, in Phoenix, Arizona. Three weeks later, the Odyssey was demonstrated at a trade show in Burlingame, outside of San Francisco. Magnavox has always maintained that Bushnell attended the show and tested the Odyssey, which played a game which was essentially *Pong* in all but name.

There is no way to prove Bushnell attended the show. He says he didn't, but a couple of Atari's early employees believe he was there. Even if he did not go, he could easily have heard about the Odyssey from a friend who did. Magnavox sued Atari, but the suit was settled out of court, with a result that seemed favourable to Magnavox at the time, but paid off big for Atari over time.

What is known is that Atari paid royalties to Magnavox for *Pong*, and that Bushnell, at a trade show some years later (after he had secured the title 'father of videogames' for himself, thanks to *Pong*) introduced **Ralph Baer**, who was the original creator of the Magnavox system, as the 'father of videogames'.



WAS M2'S POWER MERELY VAPOUR?

Did The 3DO Company use a prerendered animation sequence to illustrate the 'realtime performance' of M2?



hen The 3DO Company unveiled its M2 technology at the 1995 E3 show it presented a stunning animation sequence on videotape that was rumoured to be bogus.

The Truth

According to a source close to the original 3DO M2 project, 'there was no realtime performance in hardware back at that time. It was all just hot air. Hype, in fact.' It transpires that instead of 3DO preparing a demo itself it commissioned Kronos (the company that worked on Sega beat 'em up *Eternal Champions*) to produce a prerendered sequence (right) that could be used to demonstrate how powerful the M2 *would* be. Plus ça change...





From Russia with Litigation

The story about how the landmark Russian puzzler *Tetris* came in from the cold is as fraught with twists and turns as the best spy novel



Soviet mathematician **Alexey Pajitnov** (pictured below, with his son) created the legendary puzzle game *Tetris* and then a selection of Soviet-based interests sold the same rights to a variety of Western interests, including Nintendo, Spectrum Holobyte, Atari, and Mirrorsoft.

The Truth

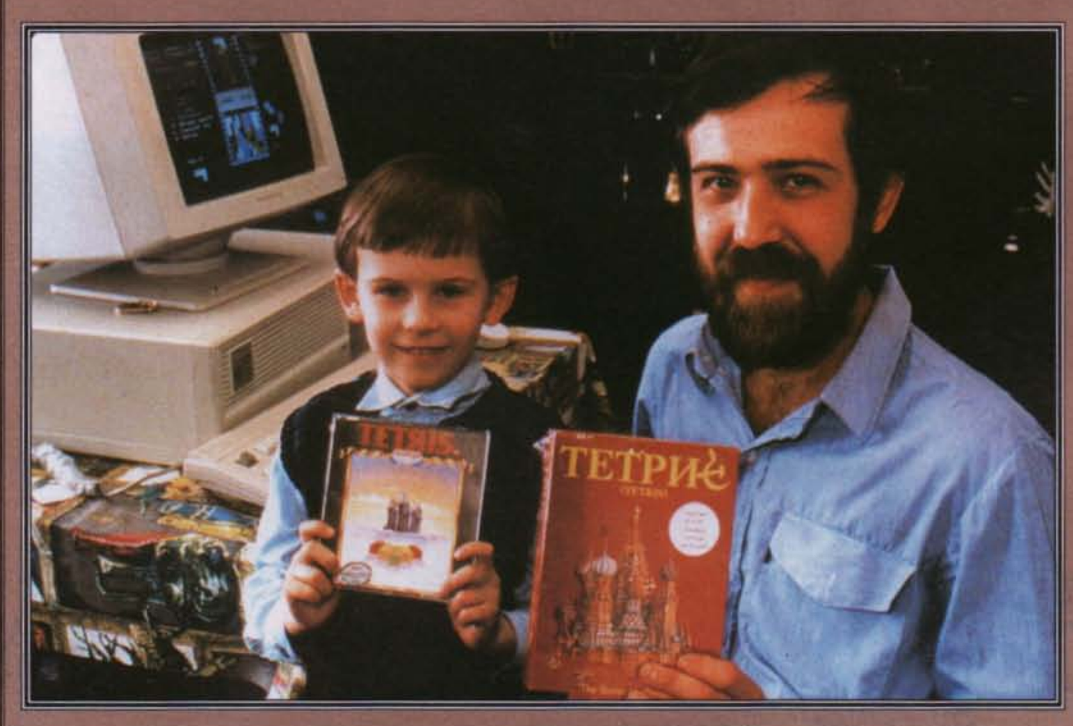
Nobody knows the real truth (or, at least, those who do aren't telling), but this is how the litigation turned out. After creating *Tetris* with the help of other Soviet enthusiasts, Pajitnov began earnest negotiations with **Robert Stein**, founder of a European software company called Andromeda. Thinking he had a solid deal, Stein then sold the rights to Mirrorsoft and Spectrum HoloByte. When Pajitnov informed officials at Elorg (short for Electronorgtechnica – the Soviet ministry governing the import and export of computer software and hardware) about the deal, they usurped control from him.

Stein ended up controlling the computer rights to *Tetris*, which he mistakenly thought included television (videogame) rights. He sold them to Mirrorsoft and Spectrum HoloByte. Mirrorsoft then offered American coin-op and handheld rights to Atari Games, and Japanese coin-op rights to Sega. In the meantime, Spectrum HoloByte negotiated with **Henk Rogers**, an independent businessman with ties to Nintendo, to sell the Japanese computer and television rights. **Ed Logg**, the creator of *Asteroids*, then programmed an NES version of *Tetris* for Tengen, Atari Games' consumer games subsidiary. Tengen *Tetris* went on sale in 1989.

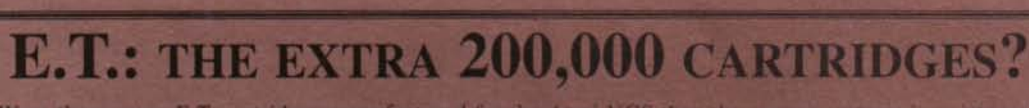
Here's the tricky part. Nintendo of America – desperate to get *Tetris* for the Game Boy and NES worldwide – challenged Mirrorsoft's claim to both the handheld and television rights to the game. On February 24, 1989, Elorg sent a letter to Rogers stating that no one controlled the television and handheld rights to the game. Rogers obtained the handheld rights, then sold them to Nintendo. Next, **Howard Lincoln** and **Minoru Arakawa** of Nintendo of America flew to Moscow and secured the television rights to the game. But Atari and Mirrorsoft did not give up. Claiming that the NES was a computer (and thus covered under Mirrorsoft's arrangement with Elorg), Atari sued Nintendo for control of the game. Nintendo won the case and got a court order that forced Tengen to stop selling *Tetris*.

Although the most popular account of the suit (in **David Sheff**'s book, 'Game Over') takes Nintendo's side, it should be noted that at the time, Nintendo was planning to introduce (and had announced) a keyboard, disk drive, and BASIC language cart for the NES. So was the NES a computer? The case judge, who was not someone that most people would describe as 'techno-savvy' said no. 'It was a travesty,' says one former Atari staffer, who asked not to be named. Still, the licensing snafus were not so much the result of dishonesty on anyone's part, except maybe the budding capitalists at Elorg. 'Obviously the Russians double dipped,' says former Atari senior vice president of sales and marketing, **Ted Hoff**. 'At least two companies were in negotiation for licensing simultaneously and the product was licensed to two companies. We had manufactured *Tetris* and put it on the market. In fact, it became the number-one seller on the Nintendo platform.' In the end, Tengen was stuck with 268,000 *Tetris* cartridges for the NES that eventually had to be destroyed. Because the Tengen version was so superior to the Nintendo version, it developed a following on the black market – used versions of Tengen *Tetris* have sold for as much as $300 in the US. In 1996, the rights to the original *Tetris* reverted back to Alexey Pajitnov, the only man who did not make millions of dollars from the game. Pajitnov and Rogers then formed The Tetris Company in an effort to reap from the game's continuing popularity.

Most recently, Pajitnov (who had been creating – or at least endorsing – puzzle games for Spectrum Holobyte) has made the move to Microsoft, where he will no doubt attempt to repeat his design success for **Bill Gates**







E.T.: THE EXTRA 200,000 CARTRIDGES?

Were there more *E.T.* cartridges manufactured for the Atari VCS than there were systems in existence? Did the unsold cartridges end up getting buried in a landfill in the New Mexico desert?



n the late 1970s, executives at Atari were so confident that a game based on the motion picture 'E.T.' would be a best-seller that they manufactured more *E.T.* cartridges than there were Atari VCS (aka 2600) game consoles. When the game sold poorly, Atari buried millions of copies of the game in a desert landfill.

The Truth

Atari actually made six million tediously dull *E.T.* cartridges. At the time, the installed base of the VCS was over 20 million. But according to **Lyle Rains**, former chief engineer of Atari's coin-op division, the reliable rumour around Atari was that there were more *E.T.* cartridges than there were VCSs in active use. It should be noted that the VCS came out in 1977 – by the time *E.T.* was released, the VCS was six years old and a lot of older sets had been retired and relegated to attics and garages.

According to **Ray Kassar**, president of Atari in 1983 (and the man blamed by some for the company's demise), the story about burying *E.T.* and *Pac-Man* cartridges in the desert is an 'absolute lie.' He claims that they were dumped in discount bins, not the desert. Several other Atari executives have a very different recollection.

'Bullshit!' responds one ex-Atari vice president. 'They drove 14 freight trucks into New Mexico, dug a pit, dumped millions of cartridges, drove a steamroller over them, then poured cement on top.'

Regardless of how many were dumped in landfills (if any), enough ended up in discount bins to start a price war that directly led (along with mass amounts of shoddy software) to the first videogame crash.



PAC-MAN: IS IT AN ASSUMED NAME?

Did *Pac-Man* once go by a longer monicker?



ac-Man was named 'Puck-Man' when it was first distributed in Japan, but Namco changed the name to avoid tempting western graffiti artists who might tamper with the 'P'.

The Truth

According to a 1983 article in the International Herald-Tribune, the name 'Puck-Man' was changed because of what Namco founder **Masaya Nakamura** described as 'the American penchant for four-letter words.'





SPACE WARS NOT FIRST VIDEOGAME?

Was *Space Wars* really the first videogame, or were there predecessors?



pace Wars, a computer game which simulated battles in deep space created in 1962 by MIT student **Steve Russell**, is generally considered to be the first computer game ever made, preceding even the likes of *Pong*.

The Truth

Other pioneers found ways to have fun with computers well before Russell created *Space Wars*. MIT professor **John McCarthy** experimented with artificial intelligence and began teaching a computer to play chess as early as 1959, and **Alan Turing**, the legendary and eccentric computer pioneer, wrote a 'computer' program that played chess as well. However, since no computer at the time was powerful enough to run it, he ran it in his head, and moved the pieces himself.

'There were certainly at least two interactive programs that existed before *Space Wars* where you interacted with switches on the computer,' says Russell. 'You got a display on the screen, and it changed depending on what you did with the switches. They weren't particularly designed as games. And they weren't very popular because as games they weren't very good.'



One program involved pushing a ball off of a platform and watching it bounce. 'It was a physics demonstration with a bouncing ball,' says Russell. The computer would simulate a ball falling off the edge of the wall and it would go bounce, bounce, bounce and would either bounce off the other side of the screen, or it would bounce through a hole.'

The other program was *Minskytron*, which Russell describes as 'a little display program that had a bunch of spots that went whirling around.' As far back as 1958, **W. Higgenbothem**, an engineer working for the DOE in the US, had cobbled together a simple demonstration program (vaguely like *Pong*), that ran on an oscilloscope. So does Russell deserve credit for making the first game? Yes. Chess is not a videogame – computer chess uses the CPU for AI, but the program doesn't (technically) even need to be run on a machine. While a few other interactive programs may have existed before *Space Wars*, they weren't really games as they are known today, merely interactive demos, with no real fail or win criteria. *Space Wars*, on the other hand, is essentially twoplayer competitive shooting, using the *Asteroids* control mechanism. It was designed to be, and is, a fully functioned videogame that requires a computer (and a monitor) to exist.

Space Wars may not have come to fruition in a vacuum, but it was certainly the first time that all the elements associated with a videogame were present at the same time.

CRIME OF THE CENTURY

Is it possible to buy illegal CDs and cartridges that contain hundreds of pirated games?



oreign companies manufacture counterfeit NES, Super NES, Genesis, Game Boy, and Game Gear cartridges (presumably they're smart enough to leave the Virtual Boy alone) that contain anywhere from 40 to 150 games, as well as CDs that contain PlayStation, Saturn and PC titles.

The Truth

Both Nintendo and Sega agree that counterfeit software (often sold through Hong Kong, right) is killing the videogame business in Asia, and that enforcing counterfeiting laws is a top priority. According to a Nintendo spokesperson, the company loses as much as $1bn per year from pirate software. By purchasing one pirated CD or cart, a gamer may be guilty of many counts of receiving stolen merchandise (the pirated intellectual property of the game). Duplicating that CD adds multiple counts of piracy to the bill, and the potential for millions in fines. In 1991, Nintendo caught United Microelectronics, Taiwan's largest semiconductor manufacturer, exporting multigame NES cartridges. The event could have set off an international incident as the Taiwanese government held a 30% share in UM, but it was settled quietly. While the multigame cartridges have been a problem, an even bigger issue is unauthorised copies of current hits. In January 1995, Nintendo filed suit against Samsung, the company that produced the custom ROM chips for *DKC*, accusing it of knowingly supplying ROMs to two government-owned piracy operations.





MARIO: ALIVE & LIVING IN THE BRONX?

Did Shigeru Miyamoto really base the character of Mario on a New York landlord?



higeru Miyamoto, designer of *Donkey Kong*, based Mario on the landlord of the New York apartment complex in which he lived.

The Truth

Shigeru Miyamoto created Mario before ever visiting the US – although his name was listed as 'Jumpman' in *Donkey Kong*'s instructions (and he was a carpenter, not a plumber). The name Mario came from Mario Segali, the man who rented a New York warehouse to **Minoru Arakawa**, the president of Nintendo of America. When Arakawa needed a name for the character, he thought of the landlord (who apparently bore a surprising resemblance to Jumpman).



'FATHER' OF GAMES IN PATERNITY SUIT

So there's a chance that Atari may have copied the Magnavox Odyssey with *Pong*, but who did the actual copying?



tari founder Nolan Bushnell kicked his daughter out of her bedroom and used it as a workshop within which he created the first 'real' videogame, the simplistic bat-and-ball game, *Pong*.

The Truth

Bushnell's great invention was the dedicated circuitry that made videogames cheap enough for mass production. Before founding Atari, Bushnell evicted his daughter and used her room as a workshop during the creation of *Computer Space*, a coin-operated version of Steve Russell's computer game *Space Wars*. Bushnell marketed *Computer Space* through Nutting and Associates, but the game never caught on.

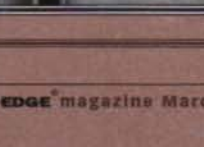
In 1972, Bushnell and **Ted Dabney** founded Atari on a shoestring budget. As he would do many times in the future, Bushnell approached **Al Alcorn**, the company's first full-time engineer, gave him the concept for a game (*Pong*), and let him go ahead and build it.

The game Bushnell described, however, was less sophisticated than *Pong*. It had simple paddles that could only knock the ball in a straight line. Alcorn improved the game by adding segmented paddles that knocked the ball in various angles, allowing players to put 'spin' on the ball. When Bushnell saw Alcorn's finished product, he knew he had a hit; he had initially only thought of *Pong* as a trial for a future game, not as a viable product in itself.



While Bushnell may not have been personally responsible for the design of *Pong*, his dedication and drive, as demonstrated by the manufacture of *Computer Space* and arcade *Pong*, are certainly enough to ensure that his title as 'father of videogames' bears some credence.

Without Bushnell's efforts, it could have taken some time before videogames caught on in the way that they so famously did.





NINTENDO'S 32BIT SUPER CONSOLE

Did Nintendo have a hand in naming – and designing – the PlayStation? Was the PlayStation name kept after the Super NES CD-ROM deal fell through as a slap in the face to the president of Nintendo?



intendo and Sony formed a partnership to create a CD-ROM drive for the Super NES called the PlayStation. When the partnership collapsed, Sony decided to design an entire console around the drive, using technology partially created by Nintendo, and kept the PlayStation name to taunt NCL president **Hiroshi Yamauchi**.



The Truth

The name PlayStation seems to have existed even before Sony's ill-fated partnership with Nintendo. Sony first investigated entering the videogame market as a partner of Philips. When that relationship failed, Sony emerged as a new partner for Nintendo, creating the PlayStation as a peripheral device for the Super NES. Sony sources, however, say the name PlayStation was first discussed back when Sony was still working with Philips.

Sony retained several engineers through all phases of PlayStation development, from its 1991 Nintendo phase all the way through the product's completion in 1994.

One of Sony's top engineers says he worked with such Nintendo electronics wizards as **Masayuki Uemura** during the first stages of the PlayStation, but claims that all of the work done by Nintendo was scrapped and that Sony started from scratch twice before completing the final version of the PlayStation.

Comparing the 16bit Super NES to the 32bit PlayStation (and even the Nintendo 64) seems to bear out the fact that the Sony PlayStation has nothing technologically in common with any Nintendo machine. Everything points, therefore, to a true myth explosion.

ATARI FAILS TO 'DO THE MATH'

Did Atari turn down *Pac-Man*, thinking it would never sell?



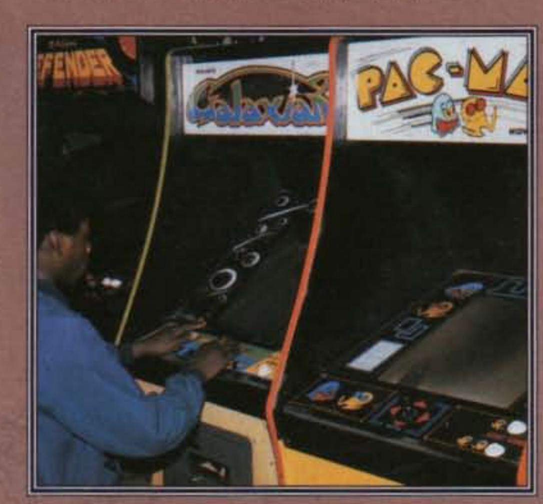
tari was offered the rights to distribute seminal maze game *Pac-Man* in the United States. When the company turned it down, Namco approached Midway Games, which went on to enjoy huge success with the title.

The Truth

In short, it's true. But the actual story is more complicated. A feud erupted between Atari and Namco in the '70s over the game *Breakout*. Namco had bought Atari's Japanese operation and manufactured and distributed the company's games in Japan. With *Breakout*, however, Atari only allowed Namco to distribute the game and insisted on manufacturing the game for its release in the US.

When Namco president **Masaya Nakamura** discovered that the Yakuza, the Japanese mafia, was manufacturing counterfeit *Breakout* machines, he began building his own counterfeits to protect his business. Atari executives accused Namco of stealing their game, and the two companies finally met in court. Atari won. After the court battle, Atari sent an executive to smooth relations with Namco without signing any contracts for future deals. Atari still saw Namco as a small-time company and felt that Nakamura had been dishonest. But by this time, Namco was one of the largest and strongest arcade companies in Asia, largely due to profits from *Breakout*. Namco engineers had begun developing their own games. Impressed by the quality of the new games, the Atari executive signed a contract promising $1 million in exchange for consumer rights to future games. When he returned, he was nearly fired for the action.

While the agreement turned out to be one of the smartest deals in videogame history, his superiors were furious. 'It was like Jack and the Beanstalk,' said one ex-Atarian. 'We sent him to Tokyo to sell the cow and he came back with a few magic beans. One of those beans turned out to be *Pac-Man*.' Amazingly, Atari passed on that 'bean' and instead the rights went to Midway. Afterwards, Atari was wise enough to handle the US arcade distribution for *Xevious*, *Pole Position*, *Assault*, and other Namco games. It should be noted that in passing on *Pac-Man*, Atari was demonstrating the same feelings of most in the US towards the game. At the 1981 AMOA, where it was first debuted, it was considered 'too simple' to work. (Just as *Defender* was deemed 'too complicated'.)



GAME OVER – FOR REAL?

Has anyone actually died from playing videogames? And what about that epilepsy scare?



laying videogames can cause terrible medical problems – of both the mental and physical variety – among them fatal epileptic seizures.

The Truth

A medical journal once reported a new infirmity called '*Space Invaders* wrist', game pads are often accused of causing 'Nintendo thumb', and there used to lots of reports of '*Pac-Man* elbow', but none of these problems have killed anyone. Additionally, videogames have been blamed in a number of deaths that occur when an unstable individual (who happens to play videogames) kills someone. The Boston Herald once reported that a man who went on a killing spree practiced his aim with *Virtua Cop*. For some, any excuse is better than taking responsibility for one's own actions, and videogames look likely to remain scapegoats for some time.

Epilepsy is quite another matter. All games today come with warnings in their instruction books for people with epilepsy. While videogames will not affect all epileptics, certain patterns and backgrounds will cause problems for a small group (who are similarly effected by looking at any TV set, or at repeating patterns such as venetian blinds).

According to a spokesperson from a videogame hardware manufacturer, two or three people have had videogame-induced seizures on the floor of every major US trade show. After years of experience, the game companies are no longer surprised when this happens. They quickly remove the people from the floor and try to keep them as comfortable as possible until the seizure ends.

The News of the World ran the headline 'VIRTUAL REALITY TRAPPED OUR SON IN A HORROR WORLD', referring to the coin-op, *Cruis'n USA*. This is completely different ball game again, and has yet to be completely clarified, medically.

For more information on the health and social effects of computer and videogames, consult the Dangerous Games feature in E28.

HEADS I WIN, TAILS YOU START A SOFTCO

Was Microprose really started on a bet?



ong time friends **Sid Meier** and **Bill Stealey** were playing the Atari coin-op *Red Baron* when Meier bragged that he could make a better game. Stealey bet that he couldn't, saying, 'You make a better game than this, and I'll market it.'

The Truth

'I met Bill at a business meeting in Las Vegas,' says Meier. 'They had an arcade room and we played this old *Red Baron* game. As I recall, I had a higher score then he did.' Stealey continues, 'The high score on the machine was something like 32,000 and I scored 35,000. Sid marched right past me with 62,000. As a pilot, that hurt my pride, so when he said that the game wasn't very good and he could make a better one, I bet him that he couldn't and told him if he made a better game, I'd sell it.' Meier came to Stealey a few months later with a game called *Hellcat Ace*.

When he tried the game, Stealey wasn't particularly impressed. He made suggestions which Meier incorporated. 'He had some good suggestions about things, like the bullets and the turn rate and things like that,' Meier remembers.

Once Meier made the changes, Stealey agreed that *Hellcat Ace* was a winning game. He began marketing it, and Microprose was born.

Meier recently left Microprose to found Firaxis (affiliated to Electronic Arts). Stealey left after the sale of Microprose to Spectrum Holobyte and is now chairman (and chief playtester) at Interactive Magic.







ARMY ARMED WITH COINS

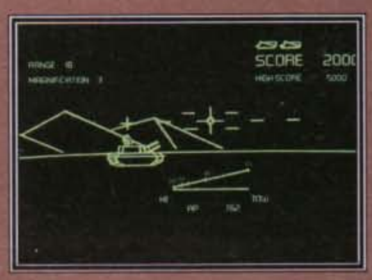
Did the US military really pay Atari to produce a version of *Battle Zone* to train soldiers?



fter viewing *Battle Zone*, Atari's 3D vector graphics tank battle simulation, the US Army approached Atari to request a modified version of the game for use in training.

The Truth

According to **Ed Rotberg**, creator of *Battle Zone*, Atari was commissioned to make a special version of *Battle Zone* that included realistic US and Soviet tanks and helicopters. The game was commissioned not by the US Army, but by a consultant group of retired generals. They thought that a more realistic version of *Battle Zone* would make a good training tool for drivers of the (then preproduction) Bradley Fighting Vehicle. As the creator of *Battle Zone*, Rotberg was asked to design the customised simulation. He objected, feeling that Atari should not get involved with the military, but finally began work on the project in 1981 after receiving assurances that his role would be limited to creating the prototype (Atari would need to find someone else to create the final production version). It took Rotberg three months of constant work to develop the prototype training version of the game – according to him, he rarely saw his wife while working on the project and he has few fond memories of the job.





Although the prototype was finished by the deadline (a military trade show), Atari decided not to pursue the military sim business any further. (At least two prototypes of *Military Battle Zone* (far left) exist in the hands of collectors.) *Military Battle Zone* quickly became a footnote to the golden age of Atari, but it did have one lasting impression – the Bradley Fighting Vehicle's steering wheel became the model for the controller on one of Rotberg's next projects, a game called *Warp Speed*. Rotberg left Atari in October 1981, before the project was finished, to found a new company with fellow Atari-expatriates **Roger Hector** and **Howard Delman**. After he left, Atari signed a licensing agreement with LucasFilm and Rotberg's project was finished and renamed *Star Wars*. So, even though the project itself failed, the game has had some impact on the industry.

GAME HEROINES IN PORN SHOCKER

Do videogame heroines star in X-rated comics and movies in Japan?



n Japan, a nation with different social values than the UK, it's no big deal that most game heroines routinely star in X-rated entertainment, when not in games.



The Truth

It's true, sort of. Hugely popular, fat, cheap, black-and-white 'fan-boy' comic books often have videogame vixens appearing in extremely compromising positions, but the comics are about as official as those that show the development teams from Sega and Namco fighting it out with giant swords (which are also more common than one might think). It is true, however, that in the officially licensed Japanese anime Street Fighter movie, Chun-Li goes topless in a shower scene.

GB & WALKMAN SEPARATED AT BIRTH

Did Sony help design the NES and Super NES?



intendo uses Sony chips in its game consoles – this means Sony has had a hand in the design of Nintendo successes from the 8bit NES onwards...

The Truth

It's true, there are Sony chips in the NES and Super NES, but they're just sound chips. The Super NES in particular benefits from a Sony PCM chip (right) which gives it much better sound quality than the proprietary chips in the Mega Drive. Only the most the most ignorant Internet denizens have managed to concoct conspiracy theories whereby the presence of a Sony chip gives Sony any design credit in a machine.





ROTTEN APPLE IN ATARI'S BARREL

Did Apple founder Steve Jobs screw Apple co-founder Steve Wozniak out of thousands of dollars while designing a game at Atari?



hile working at Atari, **Steve Jobs** was promised $1,000 for each chip he could remove from the design of *Breakout*. He asked his friend **Steve Wozniak** for help, telling him he'd been promised $100 per chip, and promising to split the money.

The Truth

The story's details are wrong, but otherwise it is essentially true. The most correct version of the story (with quotes from Woz) appears in **Owen Linzmayer**'s curiously named, but seminal, Apple history book, 'The Mac Bathroom Reader'.

Nolan Bushnell wanted Steve Jobs (Atari's 40th employee) to design *Breakout*. Jobs went to Wozniak (who then worked at Hewlett-Packard) and told him that



Bushnell would pay them $1,000 if the game consisted of 39 or less chips, and $700 if it had 40 or more. Bushnell needed the game in five days. After working four nights straight, without sleep, Jobs and Wozniak had reduced the number of chips to 42, and, exhausted, gave up. Jobs gave Wozniak his $350 share the next day.

Years later, Wozniak broke down in tears when he discovered that Jobs had actually been paid $5,000 to 'design' *Breakout*, and had been given sole credit for the work (which was mostly Wozniak's).

In some ways, though, Wozniak had the last laugh. His finished circuit design was so elegant, no one within Atari could figure it out, and the design had to be reworked from the ground up for the production model.

US MARINES BATTLE DEMONS FROM HELL

Do US tax dollars pay Marines to play *Doom*?



The US Marine Corps has created a special version of id Software's *Doom* for training soldiers.

The Truth

It's true, the US Marine Corps has created a special version of *Doom* for training soldiers. According to **Col. Paul Hanover**, the Marine-modified game 'supports a series of training standards and tasks that Marines will be required to accomplish on the battlefield.' (It should be noted that all kinds of special versions of *Doom* exist, for various purposes.)



WILLIAMS 'CEMENTS' REPUTATION

Did Williams (literally) steamroll a batch of *Marble Madness 2* boards to destroy inventory?



hen Williams purchased TWI (aka Atari Coin-op), it joined an exclusive group (Atari, with *E.T.*, and Apple, with the ill-fated 'Twiggy' drive), by physically demolishing hardware (*Marble Madness 2* arcade boards, with a steamroller), to legally destroy inventory for tax purposes.

The Truth

According to **Mark Cerny**, who created *Marble Madness* (right), *Marble Madness 2* was never manufactured. The prototype performed poorly at test locations, and Atari decided against manufacturing the game. At most, ten to 12 boards are believed to be in existence.



nuMedia

in association with ocean

No 11



A meeting point for media capitalising on the digital entertainment revolution

This month, nostalgia clashes with futurism, as a CD-ROM dedicated to James Bond and a dramatic adaptation of 'Fear and Loathing in Las Vegas' bustle for space against a satellite communicator and an advanced Internet phone. Also on the agenda is a run down on the latest hacker non-fiction and a review of Microsoft's *Nickelodeon 3D Movie Maker* CD-ROM, in which its conservative image goes out the window...

CD-ROM



- Produced by Microsoft
- Developed by Microsoft
- £40
- Outnow

3D Movie Maker

The do-it-yourself cartoon seems to be a popular genre at the moment. EA recently released the brilliant *Simpsons Cartoon Maker*, and Batman and the X-Men have both been given a similar treatment courtesy of Random House. Now Microsoft has re-entered the fray with a rehash of its own *3D Movie Maker*, which features characters taken from Nickelodeon cartoons such as 'Ren and Stimpy' and 'Rocko's Modern Life'.

Here, Microsoft never wanders far from accepted DIY cartoon wisdom. As with all other titles, the user selects a scene, selects a character, clicks the mouse button and drags said character about the screen. Hey presto: one very basic cartoon. Of course, on top of this it is possible to add more characters, a few interesting objects, and even some speech thanks to a comprehensive sample library. More accomplished film makers can then go on to create whole movies with various scenes, camera angles and special effects thrown in for good measure.

Where *Movie Maker* scores highly is in its sheer range of options. Beneath the user-friendly interface lies a pretty sophisticated range of editing tools, and with perseverence some impressive results are possible.

There are some problems, however. The visuals are not half as attractive, humorous or carefully designed as those in the *Simpsons* title, and it's frustratingly difficult to piece snippets of animation together. Overall, though, this is a fine piece of software. One thing's for sure, **Edge** never expected to find three 'fart' sound effects in a Microsoft product. This is almost worth the price alone.







Gadgets



- GSC 100 communicator
- Magellan
- £1,500
- Available Summer '97
- http://www.magellanps.com



GSC 100 communicator

With conventional GPS (global positioning system) satellite navigation systems, you can find your way to the most desolate areas of the world. But up until now, you've had no convenient way of staying in touch once you get there. The launch of 28 ORBCOMM satellites, due to go online this Summer, will change all that.

From this tiny, handheld GSC 100 you'll be able to send e-mails to, and receive them from, any Internet address in the world. Sending a message from the top of Everest or the bottom of a capsized yacht won't even be that expensive, at around 25p for a 250-word message. Future developments should allow your e-mails to be originated by standard fax or even voice calls.

As well as the ORBCOMM messaging service, the GSC 100 also incorporates a state-of-the-art GPS navigation system, which means if, while at the top of Everest, you're suddenly stuck for ideas as to how to get down, the GSC 100 can help out.

Naturally, this won't be the final word in communications technology. Challenging the GSC 100 in 1998 will be a brand new generation of satellite telephones from Iridium, many times smaller than current briefcase-sized units. Size does, of course, matter.

GSC 100 Communicator Contact Magellan, tel: 001 909 394 5000

CD-ROM



- Produced by Eidos
- Developed by MGM Interactive
- £30
- Release: March





Ultimate James Bond

There's a great exchange in 'Trainspotting' where Renton complains to Mother Superior about Sick Boy's complete lack of moral fibre. Mother Superior thinks about this for a second before replying, 'Ah, but he knows an awful lot about Sean Connery.' It was, of course, the James Bond-era Connery that Sick Boy was interested in, and his obsession, documented in such a hip, modern book, is a testement to 007's unwavering place in the British psyche.

Sick Boy would no doubt thoroughly enjoy *The Ultimate James Bond: An Interactive Dossier*, which is pretty much everything a multimedia product should be: beautifully presented, well cross-referenced and absolutely full of information. Every one of the 17 proper James Bond films can be studied in detail here, right down to the cars 007 drives, the gadgets he uses and the women he... well, kisses before the camera pans away (only to return when the couple are lying in bed puffing on post-coital cigs).

3D/fx camera

Remember those scratchy 3D postcards you used to get in the '70s? Now you can take your own rather unconvincing multidimensional snaps with this 3D/fx camera. It works by putting three separate, small images (one from each of the three lenses) on each negative. These are combined during processing to produce the final 3D print. The 3D/fx comes with a flash for indoor photography, is completely reusable and takes standard 35mm film.

The £40 price tag doesn't get buy much of a camera – it has manual winding with fixed focus and exposure – but considering other 3D models start at £100, the price is reasonable. However, using 36-exposure ISO 400 film, you'll get 24 in-depth 3D prints back from the processor for a staggering £20 a roll...

• 3D/fx Camera	• £40
• Image Tech	• Available now

3D Camera The Widescreen Centre, tel: 0171 935 2580

Programmable game controller

Tradition says that PC owners play games, while Mac users sit around being arty. Gravis, though, reckons there are a lot frustated gamesters sitting in front of their PowerPCs. The Firebird super-joystick is just for them.

The Firebird, apart from looking like the flight deck of a Harrier jump jet, has 13 programmable buttons for keyboard and even mouse commands. For flight fanatics, the stick can link up to rudder pedals for extra realism. It's also got a T-grip analogue throttle and eight-way hat switch, which at least *sounds* good.

In the likely event that you forget which buttons you've programmed for which games, the Firebird comes with software that will print out a reference card visually depicting the button configuration. The device should be arriving in the UK soon.

• Mac Firebird	• $90 (approx. £56)
• Gravis	• Out now (US)



Firebird joystick Gravis, tel: 001 604 431 5020

AXIS Internet telephone

For Net-heads who simply refuse to stop browsing even to answer the telephone, Uniden has just launched the AXIS Internet Appliance in the US.

AXIS combines a digital cordless telephone with a keyboard and LCD graphic display, conveniently centralising all your communications needs. It will also automatically retrieve e-mail messages throughout the day, flashing an alert when there's one waiting. And with a 2,000-message memory, the AXIS should be capacious enough for even the most socially-in-demand users.

Available now for around $300 (approx. £187), the AXIS will soon be able to access special pages carrying news services, stock quotes and even fully capable Web browsers.

• AXIS internet phone	• $300 (approx. £187)
• Uniden	• Out now



Axis Internet phone http://www.uniden.com

The depth of the package is also highly impressive. In the James Bond profile, for example, the user can study a guide to the secret agent's favourite alcoholic beverages – it's even possible to listen to dialogue clips of Bond waxing lyrical about vintage champagne and malt whiskies. Great stuff.

In effect, no aspect of the films is left unexamined. There are character portraits of all the allies, villains and Bond girls, as well as dozens of backstage photos and 55 minutes of FMV clips. Most importantly, there's plenty of intelligent and informative text – an element often overlooked when designers are struggling to produce flash graphical interfaces and FMV interludes.

MGM Interactive has done a tremendous job of pulling together a vast amount of information and making it all look and sound remarkably interesting. There are only a couple of gripes: a broader range of film reviews would have been great, as would a James Bond psychological profile (one was recently written by a respected psychologist). Furthermore, **Edge** isn't really sure who this kind of product is aimed at – as much as there is here, fanatics and academics will want a hell of a lot more, and those with a passing interest will not want to fork out £30. Other than that, *The Ultimate James Bond* is an excellent companion to a legendary series of movies.





Competitions

Club tickets

In last month's Out There section, **Edge** covered an electronic art exhibition entitled Video Positive 97. The event has a launch party at Liverpool's Cream club on April 11, which will include guest DJs as well as art exhibitions. Also, the event's student conference has its own launch party on April 16 at Manchester's legendary Hacienda club. **Edge** has 50 pairs of tickets for both events to give away. To stand a chance of winning, answer the following:

Name one of the three DJs responsible for mixing the 'Cream Live 2' CD



Suikoden videos & CDs

Based on the same story as '80s cult TV classic, 'The Water Margin', 'Suikoden: Demon Century' is a fabulous animated series full of histrionic violence, typically apocalyptic scenarios and weird characters. The story has also recently been converted into a PlayStation RPG title, aptly named *Suikoden* (**E**41), by Konami. In association with A.D. Vision, **Edge** can offer ten copies of the 'Suikoden' Video (volume one) and the *Suikoden* game, to the first ten people who answer the following question correctly:

Which Capcom game has been translated into both an anime feature and a motion picture?



Mark your entry either 'Club Tickets' (specifying which club night you wish to attend) or 'Suikoden' and send it on a postcard to **Edge** Magazine, 30 Monmouth Street, Bath, BANES, BA1 2BW. The closing date for both competitions is March 31. NB: Only readers aged 18 or over may enter. Please write 'I am over 18 years old' on your entry and sign it

Music

Mysteries of Creation
Various artists
Axiom Dub



Music which gets described as 'chilled out' is often too laborious, indulgent or boring even for background play. Dub, on the other hand, has a resonance and soul missing from much ambient electronica. 'Mysteries of Creation' is a brilliant case in point. Spanning a range of styles from the laid-back and unfocused work of Mad Professor (who remixed 'Protection' so effectively) to the creepy, near-industrial noise of New Kingdom's 'Black Falcon Dub', this two-CD compilation is a great introduction to a greater musical genre.

Quango Sport
Various artists
Quango/Island



Although drum'n'bass is an instantly listenable form of music, it can get a little trite if not carried out with some sense of experimentation. The artists on 'Quango Sport' play it straight, but just about get away with it. Cool Breeze's opener, 'Can't Deal With This', pretty much sets the tone for the whole compilation: sparse, laid back, pleasant. Alex Reece, Kid Loops and Cloud Nine add to the near-soporific ambience. Even Tricky's sinister 'Brand New You're Retro' has been remixed to sound bouncy and approachable.

Future Soul
Various artists
Quango/Island



For 'Future Soul' read acid jazz, because that is exactly what this mellow compilation reeks of. The presence of Freak Power, Young Disciples and Jhelisa confirm the diagnosis: it is actually sacrilegious to produce an acid jazz CD which doesn't contain the latter's 'Friendly Pressure' track. While the songs here often verge on lush '70s lounge music ('Rise' from Nightmares on Wax being the prime culprit), there is a lazy style about this album which effortlessly endears it to the listener. Turn on, tune in, pass out.

Wildlife On One
Art Of Trance
Platipus Records



For evidence that trance and melodic forms of techno have much in common with 1980s videogame music look no further than Art of Trance's debut album. 'Wildlife On One' kicks off with recent club stormer, 'Kaleidoscope', a bouncy, richly layered track that sounds like a Martin Galway or Tim Follin C64 tune dragged into the '90s, before moving through the tuneful excesses of 'Gloria', 'Octopus' and 'Cambodia'. Those craving more variety, however, may prefer volume one or two of Platipus' own compilations instead.

Fear and Loathing In L.V.
Hunter S. Thompson
Island



Hunter S. Thompson's vivid tale of drug-fuelled paranoia has been released in this spoken-word form in celebration of the book's 25th anniversary. Harry Dean Stanton exudes slow obliviousness as the narrator, while Jim Jarmusch is suitably sardonic as Duke, and 'Simpsons' regulars Dan 'Homer' Castellaneta and Harry 'Barney' Shearer provide flavour around the periphery. Never as worthwhile an experience as the book, but just the ticket for those who can't be arsed to read it.

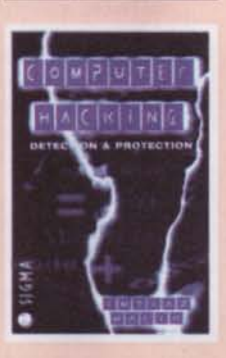
Orblivion
The Orb
Island



After drifting aimlessly through the world of ambient for the last few years, Alex Paterson has steered his collective back on course, with a fiercer and more exciting spin on that unmistakably spliffed-out sound. The dub backbone remains, and none of the playfulness has been lost. But gone are the sprawling build-ups and strung-out structures, replaced with a more direct and almost techno-based approach. A return to roots with a nod to the future – The Orb are back in business.

Books

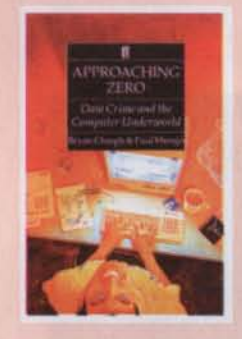
- Imtiaz Malik
- Sigma
- £13
- ISBN 1-85058-538-5



- Eric S. Raymond
- MIT Press
- £14
- ISBN 0-262-68092-0



- Bryan Clough, Paul Mungo
- Faber and Faber
- £5
- ISBN 0-571-16813-2



The Art of Hacking

Although the subject of computer hacking has slipped slightly out of the general public consciousness of late, there is obviously still an interest in the activity judging by a recent proliferation of hacking books.

To start with there's **Imtiaz Malik**'s 'Computer Hacking: Detection and Protection' which very much belongs in the 'hacking is the greatest evil known to man' category. Much of the material covered here is skilfully collated from a wide range of books, but that isn't to say that there isn't anything new. Far from it: there are chapters full of new insights on security issues which any system administrator should be aware of if they have UNIX-, VMS- or DOS-based systems. The detail in these chapters alone justifies the cover price. There are also chapters on hacking itself (but not the usual stories of personalities and their exploits) and British phone phreaking – the first incident dating back to the 1950s.

Malik has also compiled the most exhaustive list of hacking boxes to date, from the ubiquitous blue box (used to make free long-distance phone calls) to the cheese box (used by bookies to make calls that cannot be traced by the police). Rounding off with a chapter on encryption (perhaps one of the few defences the user has against hacking), Malik has provided an information source that should be read by professional and home users alike.

Approaching the subject from a more sympathetic angle is **Eric Raymond**'s 'New Hacker's Dictionary' which takes a definitive look at the bewildering mishmash of hacker jargon, slang and technospeak. In some ways it could be said that creating a lexicon like this legitimises the whole hacker ethos somewhat, and the book does tend to reinforce the common urban belief that the students at the MIT AI lab – who simply enjoyed finding out how a system worked – are the true hackers. But as an academic work it is unsurpassed and, if you relish jargon and technospeak for its humour and inventiveness, the rich language on display in the 'The… Dictionary' will provide you with lots of entertaining material. Highly recommended.

For a more objective look at the exploits of hackers and phone phreakers, 'Approaching Zero', recently re-released by Faber and Faber, is a must. Whereas most current books focus on the high-profile cases of hacking, here the early days of the activity are recounted in detail, providing a welcome background to some of the cases and events you may have read about elsewhere.

Unlike the previous books, 'Approaching Zero' also widens its scope to take in other data-crime issues. For example, a large section of the book gives the most concise account of the development of the computer virus to date. Beginning with the first documented attack, in October '87 at the University of Delaware, and moving on to more recent onslaughts (which seem to grow more malicious as the years go by), this section is a gripping read in itself.

Written in a very accessible style, reminiscent of 'The Hacker Crackdown' by **Bruce Sterling**, 'Approaching Zero' offers much information that you may not have encountered before, most notably the details surrounding the UK Prestel hack (where a computer user managed to hack into Prestel, get himself super user privileges and then access the Royal Family's accounts). Rounding off with the authors' own account of the infamous E911 document trial of the Legion of Doom, this is a worthy addition to your library on computer hacking.

MDK



***MDK* features a variety of gameplay elements, including the superb gliding sections, which often call for leaps from genuinely dizzying heights**







The monsters feature impressive texturing and amusing animation

Looking at *MDK*, it's not difficult to see why Shiny Entertainment is considered one of the most accomplished development houses in the world. For a company that's produced actually very little in terms of ground-breaking titles, its first foray into the notoriously over-subscribed PC market deserves to be a resounding success. *Murder Death Kill* (to give it its full, but unofficial, name) is addictive, imaginative and shines with the black humour that devotees of *Earthworm Jim* will already be familiar with.

At first looks, *MDK* is a straight-out shoot 'em up. The first level begins with the player skydiving onto a huge alien ship, already serving up swift and certain death to the people of Earth. This sub-game appears initially weak, reminiscent of a weedy FMV title, until the player begins to realise that this is simply a dangerous bonus stage, that the ground is not a dead texture, but scaleable, and that it's getting steadily closer. The searchlight that strikes out from the alien ship becomes a menace as missiles home in on the hero, Kurt. Weapons fly past, and must be collected before the inevitable happens, and the player plummets to the ship below. If it's done well, Kurt will begin each level with grenades, enhanced weaponry and full health.

Already, Shiny is asking players to forget about playing the game for distance, and asking them to remember how games used to be played; pick up everything, no matter how unreachable it may seem, or how insignificant; kill every monster; search every room thoroughly; and always take the higher ground. This is something that many people may find difficult, for such is the visible splendour of *MDK* that there's a strong temptation to ignore these details and head straight for the next visual overload.

Once on the ship, the game gets into its 3D stride. The vast, weird architecture of the alien ships form a series of huge arenas and strange corridors. Texturing is handled with care, filling just enough to give each level its own feel and to highlight the route without maxing out the frame rate (although **Edge** would love to see *MDK* using 3Dfx). The designers have been particularly clever here, giving the player a narrow but deep field of vision, eliminating the need for any distance fogging and allowing for some unique play mechanics.

The two most vital components to gameplay are Kurt's sniper mode and his ability to glide. The first is one of the most startlingly original concepts to appear in a game for years, and will no doubt have the likes of Core and even id taking notes as the player moves from the third-person sprite perspective to the first-person, zooming his crosshairs in on the distant explosives and alien sentries that, with a characteristic







Some of the aliens are huge (above), and can only be killed by explosives or a well-placed sniper shot to the temple. Some levels feature aliens in floatation tanks (with impressive transparency effects) and strange walkways floating in space (left)



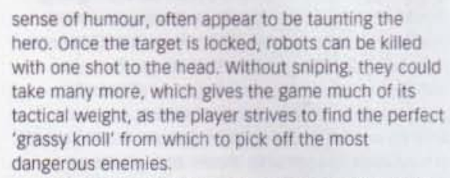






There's no shortage of imagination in the Shiny camp, as these mind-boggling levels demonstrate

sense of humour, often appear to be taunting the hero. Once the target is locked, robots can be killed with one shot to the head. Without sniping, they could take many more, which gives the game much of its tactical weight, as the player strives to find the perfect 'grassy knoll' from which to pick off the most dangerous enemies.



MDK most resembles a 3D platformer when Kurt glides and leaps across the rooftops to reach pick-ups. It requires considerable skill to perfect and gives the player access to kind of complex moves that fans of *Tomb Raider* will already be familiar with. Often, Kurt will have to string a number of fancy jumps and glides together at once, while avoiding the frenzied attack of a horde of flying, stomping, and very often bomb-laden, aliens. Each hit throws him off course, and as the ledges narrow and get further apart (particularly on the later levels), there's an awful lot more to think about than where the fire button is.

As with Shiny's previous creation, *Earthworm Jim*, *MDK*'s gameplay is varied. The skydiving stages give way to the 3D levels, which in turn contain more skydiving sections, surfboard level links and top-down 3D bombing raids accessed by commandeering one of the alien fighters. It's all done with aplomb, and more than a touch of comedy. The *Earthworm Jim* pick-up, for example, drops a huge cow onto unsuspecting aliens, and if used at the wrong time, even drops a cow on Kurt, killing him. The bosses that feature in each of the seven levels are beautifully drawn and, if handled properly, find themselves at the mercy (or not) of Kurt's sniper rifle, as Shiny encourages players to indulge their more sadistic urges.

MDK really is one of a kind, and though not fully explored here, a grateful nod must go to the incredible artwork, the perfect pace, the originality of the aliens and their creepy, truly alien world – and of course to Shiny, a team that has not only embraced 3D, but mastered it first time out. Dazzling.

Edge rating:

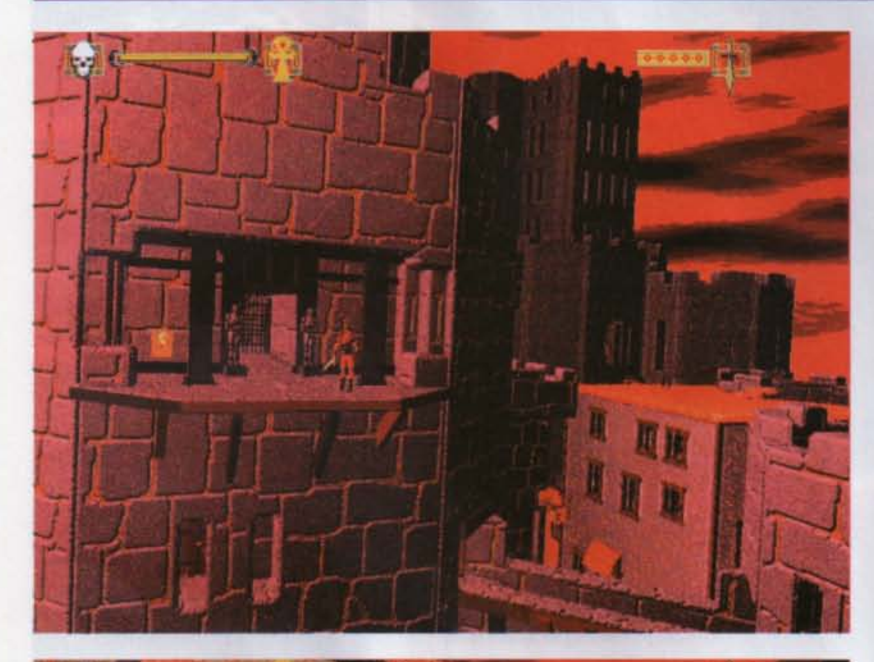
Nine out of ten



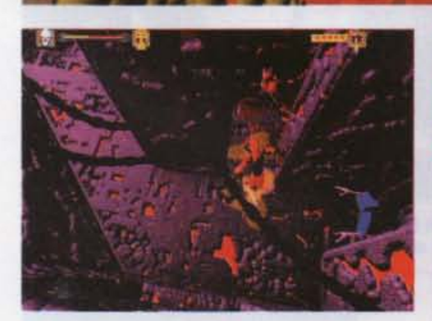
More innovation: the sniper mode allows Kurt to zoom in on his enemies and shoot them from afar

Format: **PC**	Publisher: **Interplay**	
Developer: **Shiny Ent.**	Price: **£40**	Release: **TBA**

Ecstatica 2









It's when opting for viewpoints such as this (top) that the control system problems really become apparent. The ellipsoid system proves excellent at depicting skeletons (above right)

Behind the original *Ecstatica*'s enthusiastically bloody scene-setting and cartoon appeal, the fixed viewpoints rendered gameplay remarkably similar to the aged *Alone in the Dark* series. Since then the likes of *Fade To Black* and, more recently, *Tomb Raider* have taken the third-person action adventure beyond these confines, using improved PC processing capabilities to power full 3D engines capable of tracking player movement in realtime. PC gamers have tasted a new genre which offers the dynamism of *Quake*, yet brings all the benefits of actually being able to see the protagonist on screen. Which begs the question, can there really be a place for the statically viewed *Ecstatica 2*?

Early signs are positive. The 3D engine retains ellipsoids, but now sports full SVGA clarity, something which the artists have taken full advantage of. In *Ecstatica 2* the curved motif is used throughout, the sleek lines of the various creatures mirrored in every brick and cobbled pathway of the castle. It's a simple idea, but one which furthers the feeling of graphical individuality. The extra resolution hasn't resulted in any appreciable speed loss, either, animation remaining achingly smooth on all creatures in the game, from horses and trolls to the Errol Flynn-esque hero.

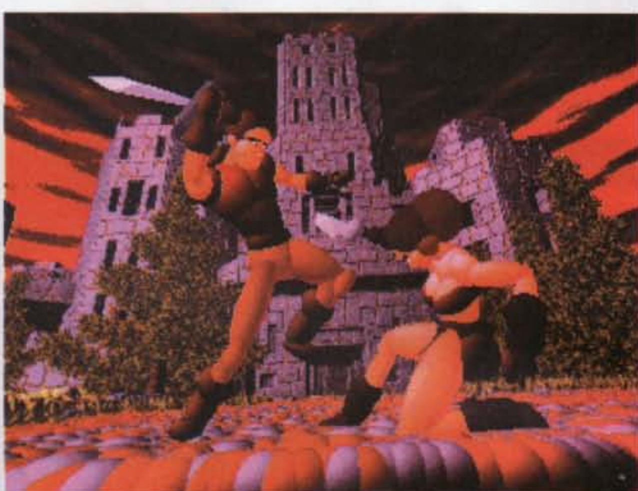
The dimensions of the game world have also been ramped up, with nearly 2,000 locations in comparison to the original's 80. The hero's repertoire of fighting moves is similarly impressive, bestowing an almost beat 'em up level of complexity to combat. Sideways rolls, spinning kicks, and a whole range of weapon attacks can be used against the array of enemies, which range from rats and giant spiders to green-skinned orcs and hulking great demons. Such diversity in assailants and possible moves adds greatly to skirmishes, with each creature type possessing its own strengths and weaknesses, some attacking singly, others in groups. As with the original there's much bloodletting, but then held against *Resident Evil*'s gore the images here seem far from shocking.

Sadly, the minor gameplay flaws which plagued the original *Ecstatica* also blight this sequel. Actually lining the hero up in the right direction is awkward at the best of times, nigh on impossible to achieve when in a tense fight-or-flight situation. It's a problem further compounded by the many viewpoints which reduce the player to a speck in the distance, and by the accuracy necessary to actually inflict damage on opponents. All too often it's possible to die at the hands of a monster simply because a sequence of lunges with a sword missed by a couple of pixels. Given the complexity of manoeuvring a character through 3D environments, a more forgiving system would have been expected.

Even the multitude of subtle touches in the game can give rise to frustrations. Why, for instance, is it possible for our hero to pick up a nearby rat, but weapons held by slain monsters remain out of bounds? The ability to plunder those defeated in order to gain better weaponry would have added greatly to the sense of progression. Too often the player discovers potentially useful objects, only to discover that they exist merely for decoration.

And then there's the decision to stick with that fixed viewpoint system. It's an understandable move,





There are around 35 different types of enemy, one or two of which are actually vaguely human (left). The ellipsoid system proves invaluable in creating solid-looking characters. Used with exemplary animation, the fight scenes make up some of the game's most interesting-looking aspects

given the overhead associated with using ellipsoids rather than triangular-based objects. And such detailed and diverse locations would be impossible to replicate using a realtime 3D system. But the quality of the environment in *Tomb Raider* isn't that inferior, and the benefits of a dynamically tracking camera would have solved many of *Ecstatica 2*'s problems. Certainly navigation and combat would have worked far more effectively, while the loading delays that precede each new location would have been eliminated.

And yet *Ecstatica 2* remains hugely appealing, simply because it's obviously been conceived with such care in every other area, and because the balance between fighting, exploration and puzzle solving has been remarkably well judged. Few games can spin out an epic story so well, the blend of cinematic viewing angles and genuinely interactive gameplay proving hard to resist. And those ellipsoid-based graphics really are a cut above the usual generic polygon-based mush. For once game characters actually look like they exist within the game world – the way the hero strides up stairwells, battles it out in courtyards and strives to recover his beloved Ecstatica from the clutches of the final demon is pure filmic magic.

The challenge *Ecstatica 2* poses gamers is tremendous, and those curious ellipsoids have once again proven to be a refreshing alternative to the mainstream 3D style. But the time invested expanding the game world might have been better used ironing out the problems posed by that control system.

Like its predecessor, *Ecstatica 2* is a game with more balls than most. But maybe that's no longer quite enough.

Edge rating:

Seven out of ten



Although the prerendered graphics are naturally limited, they allow for some glorious scenes



Andrew Spencer Studios has used a blend of fractal algorithms and those ubiquitous ellipsoids to generate scenery. The result is a host of unique and atmospheric environments

EDGE		
Format: **PC**	Publisher: **Psygnosis**	
Developer: **AS Studios**	Price: **£40**	Release: **Out now**

Dark Savior







The variety of locations in *Dark Savior* is one of its distinctive qualities – the lurid colour schemes of this showgirls bar (main), situated in the game's underground prison complex, is in marked contrast to the more naturalistic tones elsewhere (above right). The caged Bilan (left), whose passage you are overseeing

Building on its previous isometric arcade adventures – *Land Stalker* on the Mega Drive and *Lady Stalker* on the SNES – Japanese developer Climax obviously knew just what it wanted to achieve with *Dark Savior*. Using the same mix of story-driven RPG wrapped around a core of problem solving and combat, the game owes everything to the time when Ultimate first afflicted Sabreman with lycanthropy in *Knight Lore*. Now, of course, the 3D effect isn't restricted to merely a clever programming trick, having been elevated to creating a proper environment capable of being viewed from any angle.

And it's the 3D world of *Dark Savior* that impresses most. Unlike previous games of this type – *Equinox* on the SNES, for instance – the locations in the game really are proper settings, not merely a series of abstract, unconnected rooms. Getting across a yawning chasm doesn't mean jumping on the usual nondescript floating blocks, but requires negotiating a functioning crane or a series of decidedly unsafe-looking girders. While the game engine does suffer slightly from the usual Saturn glitching and slight slowdown when there's too much going on, it doesn't detract from the overall effect. The problem of judging distances and alignment of obstacles that has always plagued isometric 3D games is also negated somewhat by allowing you to temporarily adjust your viewpoint and better gauge what action to take next.

Fortunately, the RPG element is just as inventive as the 3D environment, further illustrating the gap between the Japanese and western approach to justifying a game scenario. The fantastical and the conventional are easily integrated into the story as you assume the role of bounty hunter Garian, escorting the dangerous monster Bilan to its place of execution on the remote Jailer's Island. Add to this a smattering of disgruntled prisoners, a mad warden and a rival female ninja and, while you may not have the most taxing tale, it certainly makes a change from the stereotypical space-marines-out-to-kick-alien-ass attitude so popular with western designers. The importance *Dark Savior* places on its story is also reflected in the way it tries to escape the usual RPG problem of replay value. Depending on how you



Sub-plots include the appearance of a female bounty hunter, but might have been improved





Garian can only move along the four compass points, meaning that gameplay can prove rather strict





Being able to temporaily view your position from different angles is a very welcome feature









The English translation is better than in many RPGs – but only just





Climax obviously tried to add depth to the fighting sections of *Dark Savior*, but simply hitting buttons at random often proves to be an effective combat option

complete the prologue adventure at the beginning of the game (as Bilan escapes from the boat transporting him to his execution), the rest of the adventure differs quite radically. Multiple routes mean that you could play up to five different versions of *Dark Savior* – albeit with some common scenes – with over 100 different endings. **Edge** finished the first 'parallel' in just over a day, so even playing through all of the game's many variations shouldn't present too much of an endeavour, but it's a neat touch nevertheless.

Edge finished the first 'parallel' in just over a day, so even playing through all of the game's many variations shouldn't present too much of an endeavour

As if to confirm its middle-ground stance between action game and RPG, *Dark Savior* strikes an uneasy balance with combat. Like its turn-based cousins, fighting takes place on a separate screen, but instead of choosing attacks from a menu, bouts involve a best-of-three-rounds, *SFII*-style button bash. However, while Garian can 'capture' opponents – thus giving him the ability to fight as different characters as well as performing blocks and special moves – furious, random button stabbing seems to serve just as well.

If the individual parts of *Dark Savior* occasionally fall short of the mark, when brought together they make an engaging whole, and the game deserves to sell enough to encourage Sega to officially distribute more action-RPG crossovers such as the upcoming *Grandia* and its own *Shining Holy Ark*.

Edge rating:

Seven out of ten





A blue bird called Jack accompanies Garian throughout the game, offering snippets of advice and even rescuing him at certain points







The game involves a mixture of action elements, such as jumping between platforms (above left and centre), and more sedate encounters with numerous NPCs that appear throughout

Format: **Saturn**	Publisher: **Sega**	
Developer: **Climax**	Price: **£45**	Release: **Out now**



Die Hard Arcade









Sneaking up behind enemies allows you to handcuff them (top), eliminating them immediately. Not all enemies are human (above)









Up to four enemies can be engaged at once, although one or two is more common. In twoplayer mode, the number of characters on screen can become confusing, but the Saturn handles such action perfectly

Though *Die Hard Arcade* is a perfect Saturn conversion of the ST-V coin-op, to call it anything but a very competent arcade game would be inaccurate. With the exception of a few options to bypass certain sections, it is a strictly linear affair, making for a very predictable experience.

Limited as it is in this respect, *Die Hard Arcade* boasts extraordinary depth in other areas. The number of attacking moves that the good guys possess would qualify them for entry into most straight one-on-one beat 'em ups. From complicated punch and kick combinations to throws and throw-breaking kicks, there's more to the three-button control scheme than there might at first appear.

But the game doesn't limit itself to hand-to-hand combat: included in the levels are a whole arsenal of both offensive and more makeshift weaponry. For instance, the machine and hand guns cause fairly self-explanatory damage, but broomsticks, assorted items of throwable furniture (a grandfather clock at one stage) and the self-assembly flame thrower help make the game far more interesting and varied than the many of its type that have gone before. And for those more conscious of correct police procedure, swift manoeuvring can also see enemies firmly handcuffed and out of the game.

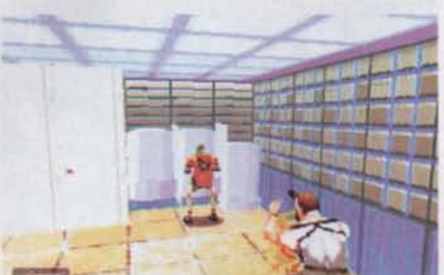
However, as accomplished an arcade game as *Die Hard Arcade* might be, serious questions have to be asked of it as a Saturn release. With plenty of continues (an unlimited supply can be earned beforehand in rounds of the antique submarine game *Deep Scan*), the game can be completed by a total novice in under 20 minutes. Although the idea then is to finish in quicker and more life-economic times, that kind of replay play is never as satisfying as the exploration of new areas. True, the excellent twoplayer game adds a lot – friendly fire becomes a danger here if the option is turned on – but, again, not as much as 20 more levels and a range of alternative routes would have done.

Die Hard Arcade is another fine Sega coin-op, well converted to the Saturn. Unlike such arcade/Saturn hits as *Virtua Fighter* and *Sega Rally*, though, it doesn't look fully at home, at home. For this type of game, *Guardian Heroes* still holds the honours.

Edge rating:

Six out of ten





Items available for collection are highlighted in red (top). Oddly, one stage sees you fighting your way through a public convenience (above)



Playing games of *Deep Scan* beforehand allows you to earn as many game continues as you want

EDGE		
Format: **Saturn**	Publisher: **Sega**	
Developer: **In-house (AM1)**	Price: **£45 (UK)**	Release: **Out now**

Raystorm





***Raystorm* takes the basic conventions of the vertical scroller and embellishes them with much visual innovation. Hence, a staggering complexity in realtime backdrops (left) and great set pieces such as this waterfall (right), where the player's craft plunges over a precipice before reaching a boss**







Backgrounds range from seascapes (top) and deep space (middle) to huge light-sourced spacecraft slowly orbiting planets (above)

When Taito chose to convert its vertical scrolling arcade shoot 'em up, *Rayforce*, to a home system, it quite wisely chose the Saturn. One of the main assets of the game was its use of depth, with enemy fighters approaching from above and below the player, and the Saturn's sprite-scaling abilities handled this magnificently. For the coin-op sequel, though, Taito switched from sprites to polygons and the PlayStation has taken over as the format of choice for a home conversion.

The game looks even better in the home than it did the arcade, taking the basic ideas of depth and perspective from the original title and dressing up the whole concept up with some marvellous graphical touches. Enemy craft now reap the benefits of realtime light-sourcing, plunging into shadow beneath the player and reflecting lasers blasts and sunlight when they swoop back up. This effect is most effectively employed on level four, where finely detailed giant spaceships slowly rotate beneath the player all the time exposing different aspects of their chassis to the sunlight above.

Other graphical touches are also put to marvellous use. In level two, for example, enemy craft slowly rise from beneath the ocean and many cruise along just beneath the surface, taking full advantage of the PlayStation's transparency effects. Even when not revelling in visual tricks, *RayStorm* looks stunning: all its craft are cleverly designed and the backgrounds constantly surprise with their variety and invention.

Most importantly, though, *Raystorm* is a thoroughly addictive experience. The dual shooting system (missiles lock-on to targets below the player, while the blaster takes out enemies on the same level) works brilliantly here, constantly demanding that the player fights two wars at once. Added to this, the screen is a constant mass of beautifully lit explosions, projectiles and enemy craft. Though thoroughly derivative in its structure (eight levels, bosses at preset intersections), *Raystorm* achieves enough to keep players pumping away at the fire buttons for days on end. It's everything *Philosoma* should have been: a classic genre emblazoned with every trick in the PlayStation's book.

The vertically scrolling shoot 'em up is perhaps the most recognisable videogame experience – one that can be traced all the way back to *Space Invaders* – and a whisper of its basic theme can be found in every single modern shoot 'em up. Which is perhaps why companies like Taito are still taking this archaic genre and exploiting it to produce enjoyable – if limited by their very nature – games. E

Edge rating:

Seven out of ten



The screen has a tendency to overload with craft, laser fire and explosions at some points

EDGE			
	Format: **PlayStation**	Publisher: **Taito**	
	Developer: **In-house**	Price: **¥5,800 (£30)**	Release: **Out now (Japan)**

Monster Trucks

After the sterling work Reflections did on *Destruction Derby 2*, crafting a stunningly quick engine and complementing it with action-packed racing, *Monster Trucks* has some great expectations to deal with. With early details of a free orienteering mode, over landscapes formed from half a million polygons and covering, to scale, a six-mile square, **Edge** hoped to be reporting on a very special title indeed.

Sadly, it wasn't to be. Instead, a title that seemed almost certain to crush Gremlin's mediocre *Hardcore 4x4* under its tyres stumbles badly in a number of important areas.

The game is divided into three different modes: Circuit Racing, Endurance, and Car Crushing. The last option proves the most forgettable, involving driving backwards and forwards over car wrecks, garnering as many points as possible before a time limit expires. Competition in this level is limited to keeping up with the scoring of another truck, which is taking part in the event in the other half of the arena. Just like *Destruction Derby*'s bowls, this USP also proves to be an unwelcome and, frankly, tedious distraction from the real game.

Circuit Racing, which is as traditional as the game gets, is much better and shows off the game engine's strong points – its independent suspension system and physics. At first the handling is tricky, with lots of oversteer, but once mastered the frequent jumps and competitive racing provide some spectacular entertainment. There are flaws, though. Slowdown, for one, and an over-sensitive damage meter that sees many races end in mechanical failure – not a disastrous state of affairs, but frustrating nonetheless.



The Circuit Racing mode confines the player to a track featuring cliffs and unclimbable hills. These elements also manage to curtail some of the game's worst pop-up excesses

Endurance, on the other hand, cruelly exposes the engine's weaknesses, despite actually being the most enjoyable mode. Pop-up, the bane of many a driving game, prevails. Where circuit-based games can compensate with cunning track and scenery design, Endurance's wide open spaces give the engine no such cover, and the results can prove shocking. It's all very well challenging the player to find their way around impassable hills, but if you can't see the terrain until you've hit it, there's little scope for planning ahead. Perhaps this is why the races themselves, from checkpoint to checkpoint, take on such a familiar circuit flavour. The only way to ensure success is to follow the leading truck, who knows his way around, until the last straight. Ultimately, all Reflections' impressive talk of freedom and flexibility boils down to nothing more than the odd bit of corner cutting.

There are other glitches, too. Take a wrong turning and you could end up in a strange alternative dimension of clashing polygons – a collision with a building can result in an infuriating bundle of fused shapes – and should you see too many of your competitors there's another generous helping of pace-sapping slowdown.

Reflections' ambition in *Monster Trucks* is laudable but the game turns out to be far less so. It would appear that the genre simply does not lend itself to gameplay thrills as comfortably as the likes of *Rage Racer* and *Sega Rally*.





The rescue helicopter (top) is called at the touch of a button and deposits you elsewhere in the Endurance landscape. Clever lens flare (above)

Edge rating:

Six out of ten





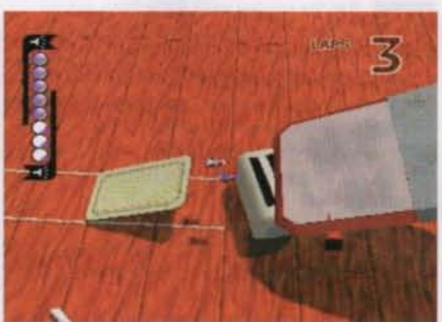


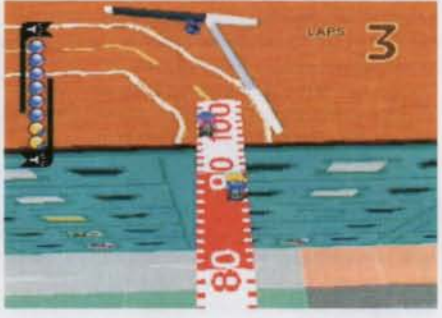
Your travels take you through the occasional hamlet (above). The Car Crushing mode in full effect (top)

Format: **PlayStation**	Publisher: **Psygnosis**	
Developer: **Reflections**	Price: **£45**	Release: **Out now**

Micro Machines **v3**







What can't be conveyed by these screenshots is just how impressively fluid *Micro Machines v3* is. The PAL machine runs at a constant 50fps making it the smoothest polygon racer to date



The breakfast table element makes a return in *MMv3*, now with cheese jumps and milk-spill skid-pans

In retrospect, the *Micro Machines* series almost seemed to mock the 16bit systems it dominated. Tiny vehicles, simplistic circuits and 'O'-level-Art-standard characterisation added up to an atmosphere that could best be described as cheap and cheerful.

Though the Micro Machines toy-line license was hardly the hottest in town, CodeMasters had some killer cards up its sleeve: heaps and heaps of beautifully accessible gameplay presented in a balanced multiplayer environment.

The leap from 16 to 32bit looked difficult, and the announcement that the game would be polygon based posed several questions. How would CodeMasters polish up the game up without losing its diminutive charm? Would the gameplay survive the transition?

After two years in development the game has materialised and its graphics remain endearing, while simultaneously managing to be highly impressive. **Edge** wouldn't have shed any tears if the characters have been dropped, but new renders have been drafted in and hit the cheese-spot harder than ever.

Fortunately, despite these innovations, playing *Micro Machines v3* feels almost exactly the same as playing its forebears. The slippy handling of the vehicles on offer is just right, as is the amount of difference between the way each type behaves.

The third dimension does make itself felt in a number of constructive ways, though. Some courses now have bumps which need to be taken into account when cornering; jumps abound; and CodeMasters has taken the opportunity to thrust the everyday items which make up the courses further into the fore than ever, making for some hugely distinctive tracks.

The multitap-compatible multiplayer mode (which allows for up to eight-way races) – always the series' ace in the hole – is excellent, with better balanced weaponry and some really challenging courses that balance against many more open and forgiving ones.

Naturally, it's not perfect. The camera occasionally abuses its new-found freedom, taking up obscure angles in during oneplayer games and making things difficult for the leader in party-play modes.

These are minor criticisms, however. *Micro Machines v3*'s blend of simplicity *and* variety in gameplay, plus its range of over 30 considerably different circuits, ensures that ultimately it gets **Edge**'s firm recommendation.





Each time all but one of the players is destroyed, the remaining vehicle does a victory jig (left) which goes on *slightly* too long. It's one of the game's few genuinely annoying traits

Edge rating:

Eight out of ten

Format: **PlayStation**	Publisher: **CodeMasters**	
Developer: **In-house**	Price: **£45**	Release: **March**

Scorcher

Players race around the tracks in *Scorcher* on futuristic bikes (below). Scavenger's Zyrinx team has created a 3D engine that moves at a surprisingly swift rate even on relatively unambitious set-ups. Note the effective use of spot lighting effects (left), which further the game's odd atmosphere



As the dream that was Scavenger collapses under its self-generated expectations, *Scorcher* is released. For a futuristic motorbike racing game it would be unfair to expect anything original, but within the tight constraints of the racing genre, Scavenger's internal Zyrinx development team has created one of the most enjoyable yet simple titles for quite some time.

Scorcher's main strength is its well implemented difficulty curve. The six tracks start at a challenging but rewarding level and as you progress through the race, taking out obstacles and dodging the pits and jumps that appear lap by lap, everything becomes temptingly harder. The near-perfect physics of the bike complement this brilliantly. Gravity and speed are well matched, the centripetal acceleration hurls you round corners, and the track edges are always threatening but never infuriatingly impossible to navigate. The whole affair belts along at a very respectable pace for a PC title, too.

Although Geoff Crammond's *Stunt Car Racer* still represents the ultimate in off-the-wall, strangely designed, gravity-controlled action, *Scorcher* gets closer to most efforts in attempting to take the crown for many years. It's an enjoyable game that attempts and succeeds in giving the PC something more than a shoddy and unoriginal console port.

Edge rating:

Seven out of ten

Format: **PC** also for Saturn	
Publisher: **GT Interactive**	Developer: **Scavenger**
Price: **£35**	Release: **Out now**

NBA Hangtime

Even though *NBA Hangtime* was made by the creators of the original *NBA Jam*, they weren't allowed to use the Jam name due to legal reasons. However, the lawyers couldn't stop the developers from using the same exact engine and nearly identical gameplay.

If you've played *NBA Jam*, then you've played most of *NBA Hangtime*. New to *Hangtime* are features like fade-aways and dribbling manoeuvres that give the player more control than ever before. However, none of this really makes much difference,since the usual shove-and-dunk core gameplay of the series doesn't wait long before making itself known. A design-a-player option is perhaps the game's biggest difference to the titles it succeeds, but it ultimately proves of novelty value only.

The fourplayer action of *Hangtime* is its saving grace, especially on the N64 where the readily available four controller ports make multiplayer gaming extremely simple. Beyond that, the game has little right calling the N64 home: the simple 2D sprites and digitised heads don't use half of the power available, and the poor frame rate is just unforgivable. In fact, the far inferior SNES plays host to a version that looks as almost as good and plays even better due to its more user-friendly controller.

There are certainly worse things to do with your N64 than enjoying a fourplayer game of *NBA Hangtime* (try *Cruis'n USA* for one), but remember that you could buy a second-hand SNES and the original *NBA Jam* (which gives *Hangtime* a run for its money, to say the very least) for nearly the same price as this cart. Assuming, of course, that you really want more of this kind of dated, and occasionally plain dull, gameplay.

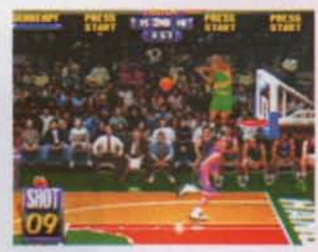
Edge rating:

Five out of ten









***Hangtime*'s biggest draw is likely to be its enormous range of quirky modes of play – a hallmark of the *Jam* series – including this 'big head' option (top left). An attempt at an ambitious dunk (top right)**

Format: **Nintendo 64**	
Publisher: **Midway**	Developer: **In-house**
Price: **$70 (US)**	Release: **Out now (US)**

The **City** of **Lost Children**











Playing a 12-year-old girl in a hostile world necessitates a rather different style to, say, the vicious scuffles of *Alone In The Dark*. Hiding, sneaking, stealing and manipulating the affairs of adults are paramount

Taking its cues from the likes of *Resident Evil*, *Lost Children* uses prerendered backdrops and moody angles in what's practically a recognisable 3D adventure format

The City of Lost Children is based loosely on the cinematic fantasy of erstwhile graphic novelists Jeunet and Caro. Taking its cues from *Resident Evil* and *Alone in the Dark*, it uses prerendered backdrops and moody angles in what's practically a recognisable 3D adventure format. The effect is richly atmospheric, even if it doesn't always capture the decrepit grandeur of the movie's elaborate computer-enhanced sets.

However, *Lost Children* is yet another depressing example of emphasising graphics to the detriment of the game. Thanks to her conspicuous animation, controlling 12-year-old heroine Miette is a real test of patience. Even a simple task like turning on a light switch becomes a chore of bumping into walls, shifting left and right, finding exactly the right spot to stand and direction to face while enduring repetitive 'I can't manage it' messages. Such clumsiness undermines any sense of realism or naturalism.

The lack of freedom also introduces elementary game design faults. To escape a warehouse, Miette needs to climb a set of boxes. However, the first box can only be climbed from one particular side, for no good reason other than Miette's animation is set up to be viewed from that angle.



A camera icon means multiple views available, helping to disguise the scarcity of locations

And, sumptuous as it may be, the environment often inhibits play. Important objects and switches are sometimes impossible to make out, with nothing to distinguish vital hot spots from the melange of non-interactive background objects. The worst excesses leave you struggling to negotiate unseen obstacles with a tiny sprite because the designers, thinking like film makers rather than players, have decided that a particular location would look better as a long shot.

Perseverance reveals little more than some unintuitive puzzles with singular solutions. At one early point you're completely unable to progress until you've discovered an 'invisible' metal bar (an action window only appears when standing right over it). Intelligent puzzle-solving is no more likely to reap rewards here than desperate trial and error, or even blind luck.

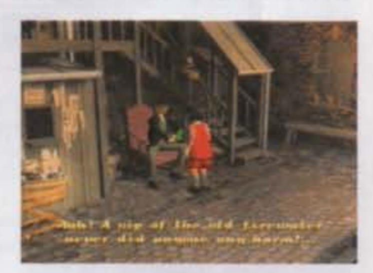
And regardless of whether it's sloppiness or lack of familiarity with the hardware, there's really no excuse for a single saved-game file demanding an entire memory card to itself – quite inexplicable in such a linear affair with so few possibilities.

The City of Lost Children's creators are obviously more interested in making movies than designing games. Indeed, on the evidence given here, it makes it difficult to imagine that they play games at all. Overall, a tragic waste of misdirected talent. **E**

Edge rating:

Four out of ten

Format: **PlayStation**	Publisher: **Psygnosis**	
Developer: **Psyg. France**	Price: **£45**	Release: **Out now**







Interaction is accompanied by CD-streamed dialogue, although disc access is a little uncomfortable

Testscreen round-up

Crypt Killer — PlayStation

Publisher	Konami
Release	March
Price	£40

Konami was on to a loser from the start with this coin-op conversion, which can lay claim to be pretty much arcade perfect, in as much as it's just as poor as the original. The same blocky sprites leap out from weak polygon scenery, wave their arms about and throw spears with some of the worst animation yet seen on the PlayStation, and either explode on being shot or get so close to the front of the screen that they resemble nothing more than a mush of tiles, reminiscent of *Wolfenstein 3D* on a 386 PC.

The Saturn, even with its tricky polygon processing, set the gold standard for light-gun games with *Virtua Cop* and its impressive sequel, and Konami's PlayStation effort is so far behind in every department, it's almost laughable. Add to that the fact that anyone with even the most basic hand-eye co-ordination could easily complete this in just a couple of hours, and *Crypt Killer* is DOA.

Edge rating: Four out of ten



Legacy of Kain — PlayStation

Publisher	BMG Interactive
Release	March
Price	£40

How do you repackage old games for a new audience? *Legacy of Kain*'s twist is to make its protagonist an anti-hero, a rapacious vampire who needs to sustain himself on the blood of innocents. Such desperately controversial elements have already won it an enthusiastic Stateside audience – where it benefits from a dearth of competition.

Kain marries old-fashioned 2D overhead hack'n'slay mechanics with sub-*Zelda* puzzles, each of its trap-laden dungeons rewarding the player with a new weapon, a death spell or a traditional vampiric form. Such spoils typically reveal secondary powers to break boulders or scale walls, thus opening up previously inaccessible parts of the world map.

It never surpasses what it imitates, however: take away the FMV and you could be playing any SNES action-RPG circa 1994, a lack of flair detracting from an otherwise amusing romp.

Edge rating: Six out of ten



KKND — PC

Publisher	Electronic Arts
Release	Out now
Price	£35

Melbourne House marks its triumphant return to the international gaming scene (the company was previously known as Beam Software) with an excellent *Command and Conquer* clone. *KKND* ('Krush, Kill 'n' Destroy') is set in a post-apocalyptic Australia where battles are fought between humans (the 'Survivors') and mutants (the 'Evolved'), and distinguishes itself from the ubiquitous classic by virtue of a subtle sense of humour and a superb oneplayer game, thanks to some brilliantly written AI routines. The units, too, are some of the best of the genre, displaying a wide variety of strengths and weaknesses that create a perfectly balanced realtime wargame. Melbourne House, which was perhaps previously best known for its 8bit beat 'em up, *Way of the Exploding Fist*, is looking strong, and may even see the all-conquering teams over at Westwood taking a few notes after this.

Edge rating: Eight out of ten



Heroes of Might and Magic II — PC

Publisher	Studio 3DO
Release	Out now
Price	£35

There was a time, a couple of years ago, when solid, highly respectable strategy games were the PC's staple diet. Today, good examples are a rare commodity, and *Heroes of Might and Magic II* fits squarely in this category.

At the most basic level this is a standard fantasy-based, resource-management game with turn-based combat interludes. *HOMMII* feels refreshingly unconstrained for this type of game, and players have freedom to explore, try any tactic and manage the entire world. There are a huge number of well-balanced and interwoven elements that are a pleasant throwback to the old days, when the likes of *Populous* hogged computer monitors. So it's a continuing surprise that developers fail to see what a demand there is for this sort of PC game which, when well-executed, can command a huge following. They should open their eyes.

Edge rating: Eight out of ten



Sonic 3D — Saturn

Publisher	Sega
Release	April
Price	£40

There's an interesting story behind *Sonic 3D*. Sega wanted Sonic on the Saturn and, after the awful mess that the American Sonic Team made of *Sonic Extreme*, Sonic Team leader **Yuji Naka** decided to quickly produce a Saturn version of the Traveller's Tales Mega Drive title, *Sonic 3D*. So, apart from a few new graphical effects, more colours, better sounds and a whole new 3D bonus round (very similar to the one seen in *Sonic 2* on the Mega Drive), *Sonic 3D* is little more than a straightforward conversion. This presents something of a dilemma. Should Sega be criticised for producing nothing more than a 16bit upgrade or should gamers swallow their pride and enjoy the game for the playable, if basic, affair that it is? A bit of both, actually, although the feeling is that Sega will have to come up with a stronger Sonic-based title than this before the year is out.

Edge rating: Six out of ten



Batman Forever — Saturn

Publisher	Acclaim
Release	Out now
Price	£45

Based on one of Acclaim's first ventures into the world of arcade games, *Batman Forever* looks every inch a coin-op title.

Acclaim's in-house motion-capture studio was set to work on the character details in the game, and the outfit is obviously a competent one, as some of *Batman Forever*'s animation is impressive.

In gameplay terms, though, wandering through a bland landscape rapidly pressing the same button and ultimately waiting for boredom to creep up won't be what Saturn owners would hope for from such a potentially strong license.

So, while the graphics and effects are fine and certainly make good use of the Saturn's excellent sprite-handling capabilities, the game should have stayed where it was originally intended: in the arcades. It's simply not suited to a long session in front of a television at home.

Edge rating: Four out of ten



Gallery

Edge scans the world of interactive entertainment to examine the work of the computer-graphics artists involved in creating the bizarre, the believable and the not-so-believable images that set the pace...

Shiny Entertainment's Nick Bruty created this image for this month's unconventional and highly imaginative 3D shoot 'em up *MDK* (see page 72). The game's hero, Kurt, uses a headmounted gun and takes out enemies with a zoom sight

This image was created by Shiny Entertainment designer **Nick Bruty** and rendered on PCs using two manipulation packages, *3D Studio* and *Adobe Photoshop*

Although Nintendo's famed game guru, Shigeru Miyamoto, has claimed that Japan is far behind the west when it comes to 3D rendering, he'd have to concede that his eastern compatriots are in a different league when it comes to character design. Both factors are exemplary in the forthcoming PlayStation title, *Kowloon's Gate*, Sony Music Entertainment's long-awaited 3D RPG. The game is already looking deeply atmospheric, thanks to a whole crowd of distinctive and charismatic characters. Set in post-'97 Hong Kong, the game promises an eclectic mix of sci-fi and fantasy artwork

Characters created by SME designer, **Nakaji Kimura**, using *Softimage*





It may be taking its time arriving, but *Dreadnought*, (previously *HMS Carnage*) from Ocean's in-house team, Tribe, features some impressive hi-res renders, not least of which are these incredibly cinematic animations. The increasingly fashionable mix of science and fantasy features heavily, with the Victorians (no doubt lead by Jules Verne) waging war on Mars using triplanes, zeppelins and steam-driven tanks

Scenes created by '**Jolly**' of Ocean Software, using *PowerAnimator* on SGI





© Ocean Software

***Virtua Striker 2*, from Sega's premier coin-op division, AM2, uses Model 3 technology to create some stunning in-game visuals. This hi-res, prerendered static, however, favours SGI hardware instead of Lockheed Martin's...**

© Sega

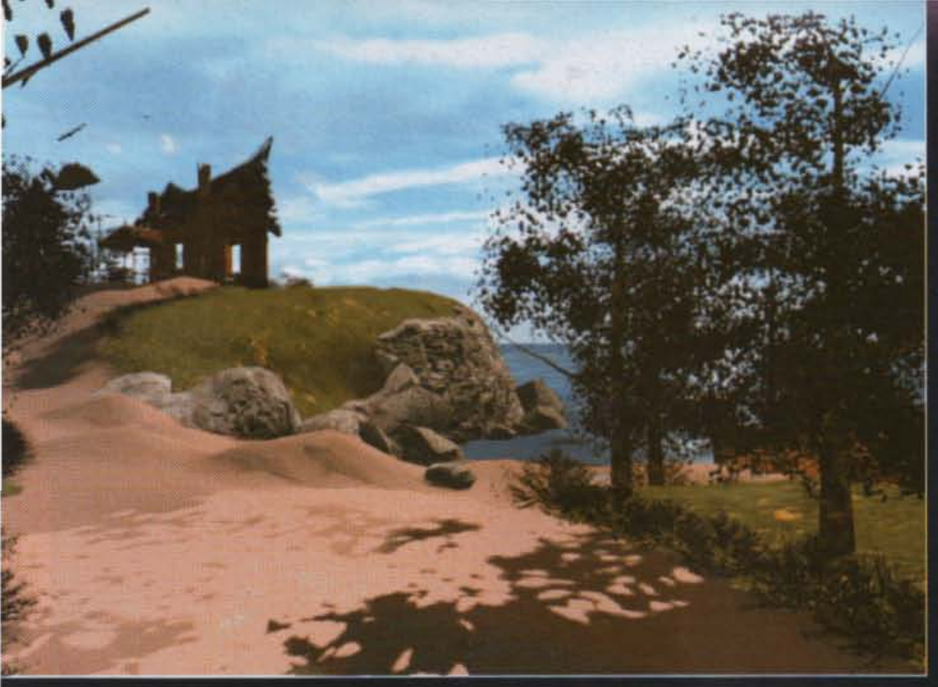




Production of Cryo's *Atlantis* began in November '95. By the look of these astounding rendered images, much of the time since has been spent modelling some extremely detailed environments. The game runs in 65,000 colours, in SVGA only, and some of the renders consist of as many as six million polys











These images may look like SGI renders, but they were in fact created using 200MHz Pentium Pro machines running *3D Studio r.4* and *3D Studio Max* – chosen primarily for their superior light-sourcing capabilities

All images created jointly by **Thomas Boulard**, **Regis Carlier**, **Cyrille Thomas**, **Jose Garcia-Estan**, **David Lecorvec**, **Olivier Train**, **Jean Freschina**, **Sohor Ty**, **Danielle Herbulot**, **Laurent Fischer** and **Christian Farcy** of Cryo Interactive Ent.



Rygar

The golden age of fantasy hack'n'slash-themed coin-ops is revisited by Edge as a Tecmo classic is paid homage. Meanwhile, another oldie readies itself for the Saturn...









For its time (1986), *Rygar* featured some of the most vibrant and colourful graphics seen in the arcade. Beautiful parallax scrolling, well-designed monsters and earth-trembling sound effects were its hallmarks

Arcade games live or die by their immediacy, and if a coin-op fails to hook players within a few minutes, it could well find itself rendundant within a few months of release. Most unsuccessful coin-ops either disappear without trace or end up haunting the darkest corners of seaside arcades. Sadly, that is where *Rygar* prematurely came to rest.

For a PCB released in 1986, *Rygar*'s primary appeal was its exceptional graphics. It was one of the new breed of coin-ops that led the charge to the increased resolution and colour palettes of the 16bit coin-op era. Despite a small main sprite, *Rygar*'s visual punch was assured by its beautifully colourful parallax scrolling and fantasy-inspired graphic design. A precursor to other testosterone-fuelled hack 'em ups such as Taito's *Rastan Saga* (**E**3) and Irem's *Ninja Spirit*, *Rygar* slotted comfortably into the 'hero saves the fantasy world' agenda that so many coin-op companies chased in the late Eighties. Unfortunately, its gameplay was lost on most people.

A combination of *Castlevania*'s yo-yo style of combat and the kind of ultra fast back-and-forth dynamics found in the likes of *Defender* meant that *Rygar* was simple of the surface, deceptively diverse underneath and, above all, fiendishly, nightmarishly difficult. What added depth to an essentially basic formula was the use of directional control over the extending weapon and subtle nuances such as being able to change direction in mid air, being able to jump onto branches to avoid advancing creatures, and even being able to hitch a lift on the backs of flying birds.

The key to progress in *Rygar* ultimately relied on securing five different power-ups that, although subtle in terms of on-screen pyrotechnics, infused the action with intensely rewarding play mechanics and greater scope. Losing all power-ups immediately on contact with an enemy certainly proved frustrating, but only made the action more uncompromising. The impact of these was further heightened by a range of superb, thumping sound effects (the kind of gratifying squelchy, twangy sounds that only Japanese sound engineers seem capable of), making for an immensely satisfying experience.

Despite a colourful but rather weedy Atari Lynx version, *Rygar* can still only be enjoyed by owners of the original coin-op PCB (of which fully working versions are rare). Fans of this style of game can only hope that 32bit versions will appear as part of some retrogaming initiative on behalf of Tecmo. **E**





***Rygar*'s power-ups appear spontaneously, but progress requires keeping hold of them**



Enemy attacks come from all angles and skilled players had to master the technique of swinging the star weapon around the fighter's head

Elevator Action Returns

Japanese developer Ving is plundering Taito's vast coin-op catalogue to exhume an old fave

Development house Ving, which has previously converted some of Toaplan's coin-ops to the FM Towns Marty, has acquired the rights from Taito to produce a Saturn version of *Elevator Action Returns*.

The game will consist of an enhanced version of the original, offering three characters to choose from, but the original version will be available to play upon completion. A UK release looks unlikely, sadly.



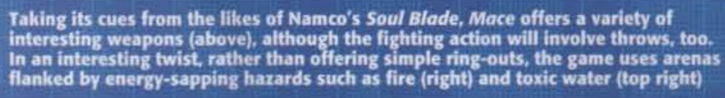
A wide variety of coin-ops appear this month as fighting games from Atari and Capcom join a shoot 'em up from Taito and the latest Model 3 game from Sega

Mace: The Dark Age









Taking its cues from the likes of Namco's *Soul Blade*, *Mace* offers a variety of interesting weapons (above), although the fighting action will involve throws, too. In an interesting twist, rather than offering simple ring-outs, the game uses arenas flanked by energy-sapping hazards such as fire (right) and toxic water (top right)



Though some of the game characters look a touch clichéd (but then what fighting game *does* use original characters these days?), visuals are strong

Developer	Atari Games
Release	Out now (US)
Origin	US

One thing the videogame industry never has to worry about is a lack of fighting games. Dozens arrive every year striving for big success, but probably less than 10% ever really make a splash. Atari Games, however, believes it has studied the right games and cultivated the right elements to make *Mace: The Dark Age* a seminal title, despite its once tenuous beginnings. As **Robert Daly**, *Mace*'s producer, explains, 'Before Midway came along and merged with Atari, there were no resources for this game. We were on tentative ground for quite a while. But Midway's philosophy was to let the team go and do its thing. Once we began, we pulled *Mace* together very well.'

With support from Midway and 3Dfx's two-chip Voodoo Graphics solution (a modified version of the PC chipset boosted for arcade hardware, also used in *San Francisco Rush* – see **E**41), the 11 designers have transformed *Mace* into a 3D, polygonal, weapon-based fighter along the lines of Namco's *Soul Edge*. Running at 30fps at a standard resolution of 512x256, *Mace* is crafted after several other well-known brawlers, but adds eccentricities and flair in unexpected places.

'One guy on our team is in the Society for Creative Anachronisms, and he posed



The 11-character line-up includes, typically, a number of female combatants








Kicks (left) are joined by grapple attacks (above) in a game that culls from its myriad contemporaries. But will Atari be able to include the necessary gameplay subtleties?

for our motion-capture work,' says Daly. 'If the moves didn't work out right the first time, we could easily redo them because he was always around. We started with 30 characters drawn onto cards. Focus groups of teenage kids narrowed the group down to 11 while reinforcing things we already knew and pointing out things about the characters that we just couldn't see.'

The final 11 represent an international collection of gods, belly dancers, samurai, and monks. They include such disparate members as 'Lord Deimos', a heavily armoured knight; 'Takeshi', a noble samurai armed with a katana; and 'Namira', a former harem girl with a chip on her shoulder and an overhead sword. The two bosses – 'Grendal', a black-and-red obsidian gargoyle with a skull hammer; and 'Asmodious', the final boss – are dark and brooding, much like the game itself.

The fight mechanics boast various combinations, throws, counters, chain combos, 'and plenty of decapitations,' says **Darryl DePriest**, the game's marketing director, with a grin. A four-button configuration controls moves, and fighters can compete in a full 3D arena, using side-stepping and 3D attacks. Sloping backgrounds, similar to those used in *Virtua Fighter 3*, will be incorporated into play, although traditional ring-outs are nonexistent. Instead, each large arena is surrounded by some life-threatening element – be it molten lava, quicksand, toxic water, or spikes – that cause damage but not instant death. These danger zones keep the fighting localised but avoid the abrupt endings seen in so many ring-out games.

Visually, *Mace* is stunning, with moody backgrounds blended with a bright colour palette. The crisp, fluid animation and full incorporation of texture-mapped polygons on the characters work well and appear to create a complete look, with a level of detail and sophistication not seen in Atari coin-ops for some time.

The preproduction version **Edge** saw was nearing completion, with various lighting effects having just been added and tweaked. At this stage, *Mace* appears to be off to a strong start. If the final results live up to expectations, Atari's game could be the US-engineered brawler that finally makes big Japanese manufacturers sit up and take notice. **E**





***Mace*'s locations have the level of diversity required in the genre**





The twin-3Dfx chip set-up allows for some swish spot effects, such as this swipe trail (above), to accompany the polygon environments



Virtua Striker 2





Football games have been staple components in arcades for years, with examples from Taito (*Kick 'n' Run*) and Tecmo (*World Cup 90*) being particularly popular examples. Sega's original *VS* was the first to effectively use polys









The game appears to offer a wider view of the action (above) than the original title did

Virtua Striker, designed using Sega's Model 2 board, was a great success, despite the highly competitive nature of the football game coin-op genre. The sequel looks to be an attempt to build on that success without alienating fans of the original title.

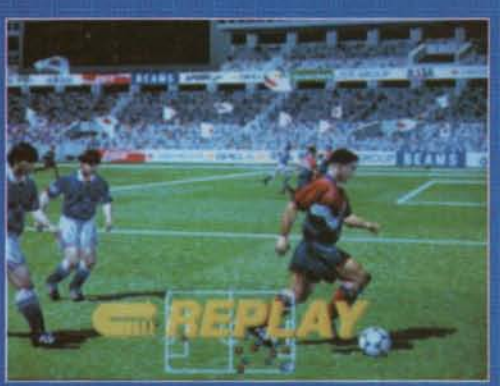
The most obvious new addition is Sega's Model 3 technology itself, which has inspired the designers to place an the emphasis on the visual side of football (great moves, exciting scenes, etc). The players themselves are effectively a testament to the board's advanced shading and texture-mapping effects, each one sporting a detailed and realistically individual look. Plus, Model 3's 60fps refresh rate, its ability to handle 1 million polygons per second and the deft use of motion-capturing technology all combine to provide incredibly fluid and believable on-field movement.

In terms of gameplay, *Virtua Striker 2* – with a control system virtually identical to that employed in the original title – is more an update than a complete overhaul. The player can still shoot, slide, head the ball and make long and short passes, but now the techniques accessible from this system have been significantly built upon. It's now possible to utilise a much fuller range of offensive and defensive strategies – a very important factor considering the improvements made in opposition AI: each team in the game can now call upon a different set of tactics thanks to the Model 3's greater computational powers.

Realism and detail also linger in the periphery of the game. There are 24 teams to choose from (six more than in *VS*), a series of stadiums based on actual grounds, and even a ball modelled on the Adidas Questra ball, as used in the 1994 World Cup. AM2's penchant for product placement takes another odd step forward.

Virtua Striker 2, then, looks to be a significantly improved version of an already solid football title. The designers, promising unparalleled fluidity and complexity of player movement, seem to have fully capitalised on all Model 3 has to offer and, if their apparent obsession with visual finesse doesn't interfere with gameplay, this should be the *Virtua Fighter* of soccer titles: playable, graphically stunning and far ahead of the competition. **E**





Replays of goals allow the Model 3-generated visuals to be appreciated in their full glory. Note the extreme level of detail evident on the back of players' shirts (left) and the vast complexity of the game's football stadia (right)

Developer	Sega (AM2)
Release	TBA
Origin	Japan



Darius G









Taito has capitalised on the use of polys in *Darius G* by designing some stunning craft

Developer:	Taito
Release:	Spring (Jap)
Origin:	Japan

The *Darius* series has become something of a cult since the original title premiered ten years ago. Although the sequel moved down to two screens from three, it retained the popularity of its predecessor dues to its novel 'Area System', which gave players the choice of two different routes at the end of each section.

In *Darius G* (a single-screen title), the Area System has been retained and refined so that transition between sections is smoother. Now, instead of jumping straight from one background type to another, sections retain similar visual themes and so flow naturally into each other in a more gradual fashion.

More importantly, though, *Darius G* uses Taito's FX1 arcade board, previously seen powering *Ray Storm* and *Fighter's Impact*. This allows for some spectacular backgrounds and the use of polygons instead of sprites for the game's spacecraft. Although the game is still essentially 2D, the new 3D slant has added much – especially to the end-of-level boss ships, which were always an important part of the *Darius* legend. Now, the ability to enslave mid-level bosses and use them as allies – a feature which has been touched upon in previous incarnations – has been extended so that players can now capture many types of craft.

Despite the archaic nature of the horizontal scrolling shoot 'em up, *Darius G* seems to have enough new gameplay elements and visual improvements to guarantee support from a committed fan set. Taito appears to be reaffirming its position as a shoot 'em up giant.





The game features beautifully drawn backgrounds which merge seamlessly together as the player progresses through each section

Vampire Saviour

After Capcom's long-delayed creation of a true third *Street Fighter* title, it was inevitable that further games would get the trilogy treatment. Hence *Vampire Saviour*, the second follow-up to the horror-themed 2D beat 'em up, *Vampire* (known as *Darkstalkers* to western audiences).

Little is known about the game as yet, but judging from the impressive screen shots, Capcom has once again employed its CPS III board. As for gameplay content, the company has not confirmed any changes to the combo system, but did recently reveal four new characters: a gun-toting girl, humorously named 'Bullets'; 'Q-Bee', a half woman/half bee mutant; 'Lilisu', a relative of Morrigan; and 'Jedah', who seems to play a key role in the game.

The game will eventually hit the west under the name of *DarkStalkers: Jedah's Damnation*, but will make its official debut in Japan at the AOU show in February.

Edge will have a report on the game – and all the other titles at AOU – in next month's issue.



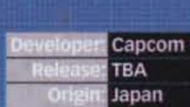


It looks like *Vampire Saviour* will capitalise on the outlandish moves characterised by its predecessors. A new combo system is expected, though





Many characters from the first game, including Demitri and Sasquatch (top), live to fight on in part three



Developer:	Capcom
Release:	TBA
Origin:	Japan





I got issue 40 free with my Special Reserve membership would like to say that **Edge** has come a very long way since the very first issue which I brought all those years ago. Then it was a bit thin on the ground with info and mainly consisted of a few reviews of Japanese imports of *SFII*. It's also easier to read and find what you want with more information readily available.

The 3Dfx vs PowerVR article was very interesting to me as I do a lot of work with the latest games but nowhere in the article could I find which one exactly you thought was the best. I couldn't either find any sort of price (estimates) for the hardware. Do you think you could tell me? Also I couldn't really tell how these next generation cards perform against the present 3D accelerators such as the Matrox Mystique and the Stealth 3D.

Another thing. In the prescreen of *Powerboat* you state that: '*Powerboat* is replete with special effects such as fog, many of which having only previously been seen on consoles. The big question is how well will it run with them turned on?' Fogging (and other effects) have been used on the PC for quite some time. Many flight sims, eg *EF2000*, and even games like *Quake* all use fogging.

It is used to decrease the work needed to be done by the graphics card, meaning that the very far off polygons are not needed to be calculated at all. As these are the first thing to be drawn and, despite their size, need as much calculation as the larger polygons, it does in fact speed up the frame rate and give the appearance of a higher resolution.

Henry Gibson, via e-mail



Henry Gibson says that *Powerboat*'s fogging effects are far from impressive, as many PC titles have used the trick in recent years

Given that 3Dfx and PowerVR both need time to gain a foothold in development terms, **Edge**'s analysis relied on industry opinion rather than premature speculation, but on the whole it was clear that 3Dfx currently seems the most favoured. With regard to prices, VideoLogic's Apocalypse3D weighs in cheapest at around £170, while 3Dfx cards (either the Diamond Monster 3D or Righteous 3D) will set you back a further £50-60.

Regarding *Powerboat*, fogging has been used in numerous other games and Eastpoint's game uses the effect in order to generate atmosphere, not necessarily to hide any deficiencies in its 3D engine (rather like Innerloop's technology – see page 30).

There is something missing from your analysis on Sony's Net Yaroze.

A lot of effort went into describing the interest and importance of the shareware/freeware scene that was in place with the Spectrum, C64, Amiga, etc. This is true (I was there!), but there is a fundamental difference from both the developer and user perspectives here.

Bedroom programmers knew that the code they wrote would run on their audience's boxes. Users knew that a piece of code they downloaded would run on their machine without an extra investment in hardware.

I used to love the Amiga shareware and freeware scene. It's true that a lot was dire crap, but there was a lot that was good, interesting, and worth getting – the demos that were available, for example, were just excellent.

This all sounds pretty negative, and I don't want to sound that I'm against Yaroze. It's an excellent move by Sony, and I'm even more happy now that I invested in a PlayStation rather than any other console system.

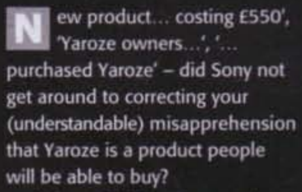
I have a suggestion: Sony, why not devise a way of getting the Yaroze software onto normal PlayStations? A cheap (sub-£50) floppy-disk drive or something, for example. I would not be against having to stick in a few diskettes so as to get other people's code on my PlayStation – 3Mb is about two 1.44Mb diskettes. I can't believe it would cost a lot of R&D to get this out, but the impact could be that Yaroze developers would have a bigger audience and us end users would have a cheap source of innovative, original, gameplay-oriented software.

Neil Aubin, Bucks ▶

Neil Aubin isn't happy about the limitations of the Net Yaroze software scene. The answer, he suggests, lies with a floppy disc drive add-on for the system

◀ True, the Net Yaroze project cannot hope to create an amateur development scene to rival that of the Amiga in its heyday. Unfortunately, there's little chance of getting what you so desire, even though, on paper, it does indeed sound like a viable proposition.

Net Yaroze has been designed to be a home development environment, not a home computing environment. As such, it's not expected to attract interest from those who've previously only looked upon amateur coding developments from a third-person perspective.



New product… costing £550', 'Yaroze owners…', '… purchased Yaroze' – did Sony not get around to correcting your (understandable) misapprehension that Yaroze is a product people will be able to buy?

It is not. £550 gets you only a *licence* to use a Yaroze kit which remains Sony's property. You don't own the PlayStation nor any of the software, and are required to return it under conditions that you can probably guess!

Can I suggest you have a close look at the licence agreement (when you get it)?

Name witheld,
via e-mail

Phil Harrison, vice president of marketing at Sony in the US, had this to say in response: 'I can't speak for the European agreement as I don't have one to hand, but the consumer buys the special black PlayStation – it's theirs to keep forever. Purchasers can become members of the Net Yaroze 'culture' which enables them to have access to the website and develop software for sharing with other members. The basic principal of membership is like any club – you have an access card which belongs to the club, so in the event you don't pay your membership fee (or break the rules of the club) the club management has the right to refuse admission by removing your access. The access card (which looks like a memory card) and the cable to connect the PC are licensed products which are part of the membership element of the product. The PlayStation, however, is yours to keep and treasure forever.

I read with interest your story on Net Yaroze and its impact on game development. However, I was amazed to see virtually identical copy in both **Edge** and *Next Generation* magazines – right down to the same overall story, same 'interview' with Sony officials, and virtually the same layout (eg the appearance of sidebars with top developers).

While this situation is probably normal, it didn't look particular good to those readers who happened to pick up both copies of these magazines. I mean '**Edge** went to Sony…', '*NG* went to Sony…', and **Edge** and *NG* happened to ask exactly the same questions and got exactly the same responses. It left me the impression that each of your magazines lack depth and individuality.

Michael Sydenham,
Altitude Multimedia, Australia

Next Generation was launched over two years ago and is essentially an Americanised interpretation of **Edge** published by Imagine Publishing in San Francisco, a company run by the ex-managing director of Future Publishing. Both magazines work together closely but their remits and overall mission statements are the same – to provide the best coverage of the interactive entertainment industry – something that the link fosters greatly. Any duplication of editorial information is intentional because the magazines are created for different markets. *Next Generation* is sold in the US and not widely available in the UK.

Remember the days of Beebop by the likes of Bill Haley? These people were derided and ridiculed for what they did. But look now… They're legends, with countless greatest-hits albums and films about their lives (well, not Bill Haley, but I think you get my idea). In time, the games industry will grow and mature, it will become an accepted part of our culture and maybe we will finally get some decent TV programmes (**Edge** on Channel 4?). I can see it now: a film about Sid Meier, tormented programmer, his life, loves and tribulations as he sits, tinkling on the keyboard while toying with the idea of playing God.

Out of a recent survey taken between my friends at work (at 3am on a Saturday nightshift), every single admitted to having played videogames at some point in their lives, while more than half of them actually owned consoles or PCs and regularly waggled a joystick. Many social evenings have been spent at my house guzzling beer, playing *Tekken*, smoking and arguing about games. These are people who have grown up with games, love playing them, and more importantly can spend huge sums on games and peripherals to increase their enjoyment. Yet the people who are in charge of game development – Nintendo being the worst culprit – are still churning out pap aimed at 14-year-olds! I find it absolutely incredible. Move on and move upwards – let the industry grow up with the men and women who follow it.

Sony seems to be one of the few companies making a positive move away from this, while PC games have traditionally been aimed at the older audience as well. The ease of portability from PC to 32bit console has made it easier for games such as *Fade to Black*, *C&C* and LucasArts' games to reach Sony's and Sega's machines. This is what the older player wants: strategy and playability (with a slice of bloodshed for good measure!).

To close, I'd just like to say, come out of the closet and declare your addiction – I am a videogame player; I wrote THAT videogame. Perhaps the next time you're at a party, that attractive member of the opposite sex might just know who you are…

Marcus Waldock,
Co. Durham

Videogamers have always been lumped into the same group as Dungeons & Dragons fans and Trekkers by some people, and the stigma is a difficult one to shake off, not helped by the fact that many fans of the scene – especially some of those who corrupt the Internet with their

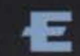


Michael Sydenham does not understand the links between Edge and Next Generation

incessant wibblings – who seem so keen (and amply able) to perpetuate the image.

Sony's efforts in dispelling the myth that all videogamers are spotty herberts with inadequate social skills could be argued at length? But, ultimately, who actually gives a toss?

If it's something you enjoy, carry on enjoying it.



Those damn Yanks, eh? (Or should I say those good-natured, honest, hard-working Americans, fine fellows to a man, the whole bally lot of them?) Really, some people just can't take criticism. To be honest, I can almost (well, nearly almost) sympathise with Mr Hammack [see Letters, **E**41], as, being a Geordie (note the capital letter – pride is involved here), certain prejudices have not gone unnoticed. For instance, I myself feel particularly less Geordie-like if I have a single solitary thought enter my head which at some stage does not involve footy, booze or, for one week in July anyway, sex. On the other hand, were these obvious failings pointed out to me in a publication such as yours, putting pen to paper in complaint would be almost unthinkable (after all, speaking or writing intelligible English is, apparently, not typical Geordie behaviour). Clearly, the average Yank is devoid of the layer of skin that prevents them writing hate-mail to all and sundry at the merest hint of anti-Americanism.

Having said all that, Mr









Michael David Ault wants cheaper PlayStation games. Will Sony's new Platinum range, at £20 per game, be the answer to his prayers?

Hammack did succeed in making me laugh, albeit at his own expense, which does go to prove one thing: they may not quite have grasped sarcasm or irony, but they sure have mastered being the butt of a good joke.

Michael Stephenson, Newcastle Upon Tyne

And that really *is* the last note on the topic. **Edge**'s American cousins already have enough 'anti-US' coverage in the mainstream media to deal with, to say the least...

I have two things to say. One, I wish **Edge**'s game reviews carried more comments on sound and speech samples. For example, *Resident Evil* on the PlayStation is unplayable as I cannot hear the speech. Could you possibly include a symbol in reviews to reveal whether a game is deaf-friendly or not? I don't mind *F1* commentary, as it merely adds atmosphere rather than being integral to gameplay. *Fade to Black* has a caption option, which allows you to turn speech on or off. It should be a standard in all adventure/RPG games. (I'm not worried about sports games.)

Second, I'd like to see the price of PlayStation games fall. Yanks can buy games for $50, which is roughly £35 here, but we have to pay £45. I believe the market is big enough for Sony to cut a tenner off the price; I believe all games should be under £30. I understand Sony has sold over seven million PlayStations worldwide, so why no price cut yet?

Michael David Ault, via e-mail

To address your first point, **Edge** will certainly consider including such information in game reviews where relevant.

Regarding your second, there is not an across-the-board price drop in the offing for PlayStation software, but you may be interested to hear that Sony will be launching a series of £20 games on March 7.

Called the Platinum range, the first sextet of titles will feature *Ridge Racer*, *Tekken*, *Toshinden*, *Air Combat*, *Destruction Derby* and *Wipeout*. Apparently, Sony intends to make 25-30 Platinum titles available before the end of '97, which will be excellent news to those thousands of gamers who've long suffered frustration over the comparative price of PC software.

The person who answers all the letters seems to have an answer for everything, non?

I guess that's what they're paid to do...

Darren Pullen, via e-mail

Q&A

Rely on Edge to cut through the technobabble. Write to Q&A, Edge, 30 Monmouth Street, Bath, BA1 2BW

Q I have been following the emergence of 3D graphics cards and have two questions:
1. Would I be able to install 3Dfx [below] and PowerVR cards and switch between the two easily, or is it a difficult process? I want to get the best set-up possible...
2. If I buy an MMX-enhanced Pentium, can I still insert a graphics accelerator card or will this prove incompatible with the new MMX technology?

Robin Holt, via e-mail

A 1. As long as you have two ports free, it is theoretically possible to place both cards in the PC at once. The process is not entirely straightforward, however, because, in order to use one, you'll have to disable the other. Disabling the Video Logic Apocalypse3D is easy – when the card is in your PC, a small box will appear on the right-hand side of the *Win 95* task bar giving you the option to switch the card off. However, according to technical support engineers at Diamond (Monster3D) and Orchid (Righteous3D), neither 3Dfx-based card can be disabled in that way. As soon as you place a CD-ROM in the drive and the 3Dfx card detects either Direct3D or Glide code, it automatically takes over the display. It may be necessary, then, to use the Apocalypse3D card only for PowerVR 'Extreme' titles (ie those that use all the custom features of the technology and don't employ Direct3D), leaving most games to the 3Dfx card. This option will no doubt prove too expensive and wasteful for most users, though.

Furthermore, it is worth bearing in mind that, the more cards you have in the PC, the more chance there is of it assigning information to the wrong places.

2. No, accelerator cards are not incompatible with Intel's MMX technology and it is perhaps still worth purchasing one if you want to use your PC just to play games. MMX helps mostly with things that the PC is doing in software right now – movie playback and 3D calculations, for example. Graphics cards, however, can deal with rendering, sorting, etc, as well as custom visual effects. As eminently promising as Intel's new technology is, cards like the Apocalypse3D, Monster3D and the Righteous3D all boast features not provided by MMX technology.

Q Could you please shed some light on the somewhat confusing issue of frame rates. It is my understanding that the human brain is only able to process images at a rate of about 26 frames per second, so if this is the case why do developers always aim for a 30 or sometimes 60fps screen update in videogames? Two games which supposedly (in their native NTSC versions) run at 30 and 60 hertz respectively are *Soul Edge* and *Tekken 2*, and to me there is a marked difference between the two – *Tekken 2* being much smoother and realistic. But surely this contradicts the 26Hz threshold for the human eye. Also, is it true that televisions and monitors have varying update speeds, and how does this affect the whole issue?

Stephen A. Mackintosh, University of Edinburgh

A As you correctly note, the human *can* detect the difference between 30fps and 60fps otherwise the difference in fluidity between *Soul Edge* and *Tekkens 1&2* (and *Virtua Fighter* and *Virtua Fighter 2*, for that matter) would go unnoticed. In movies (where the action is filmed at 24fps), you'll occasionally notice a jerkiness when the camera pans across a landscape, but on the whole 24fps is sufficient.

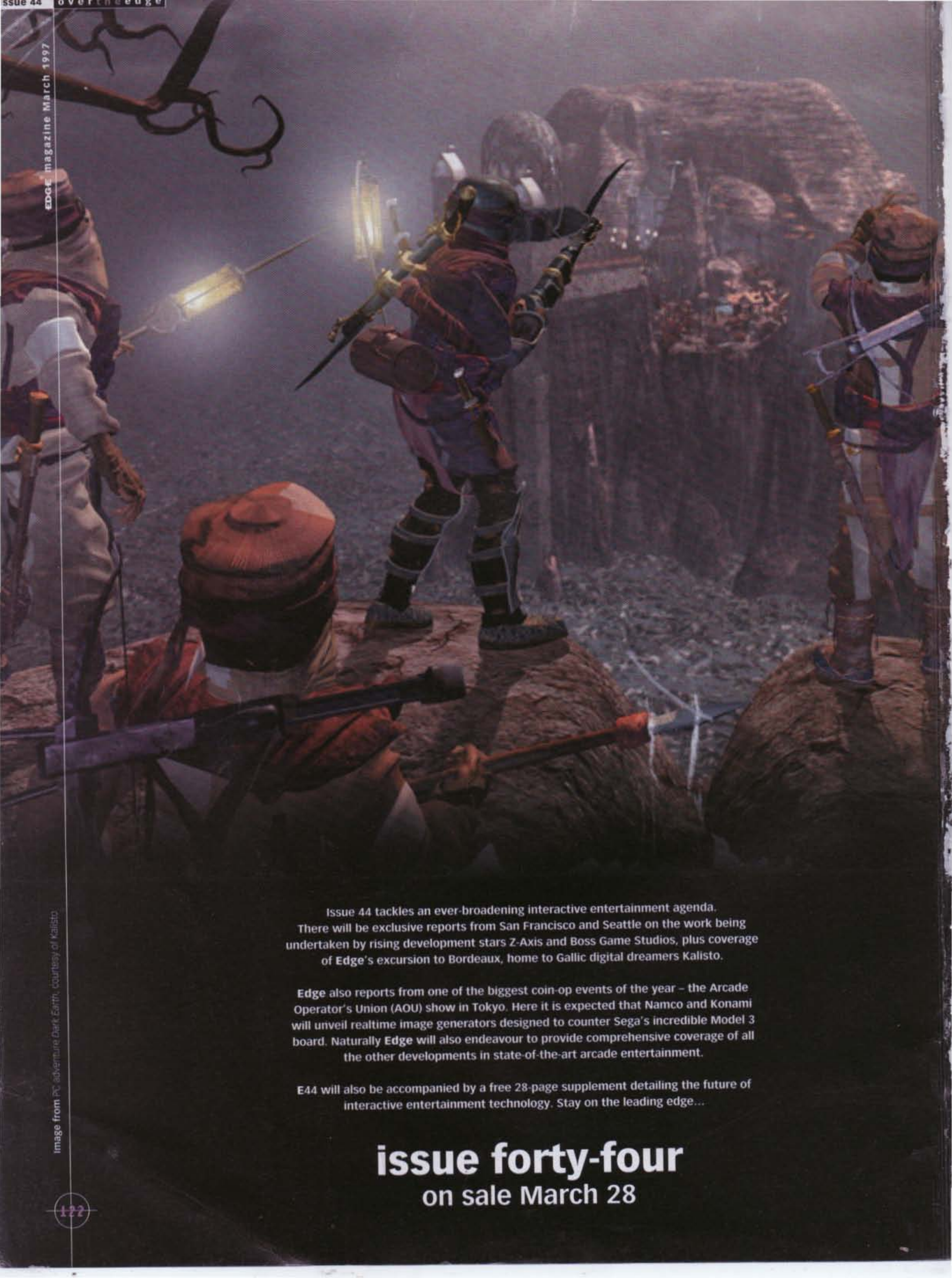


Image from PC adventure Dark Earth, courtesy of Kalisto


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